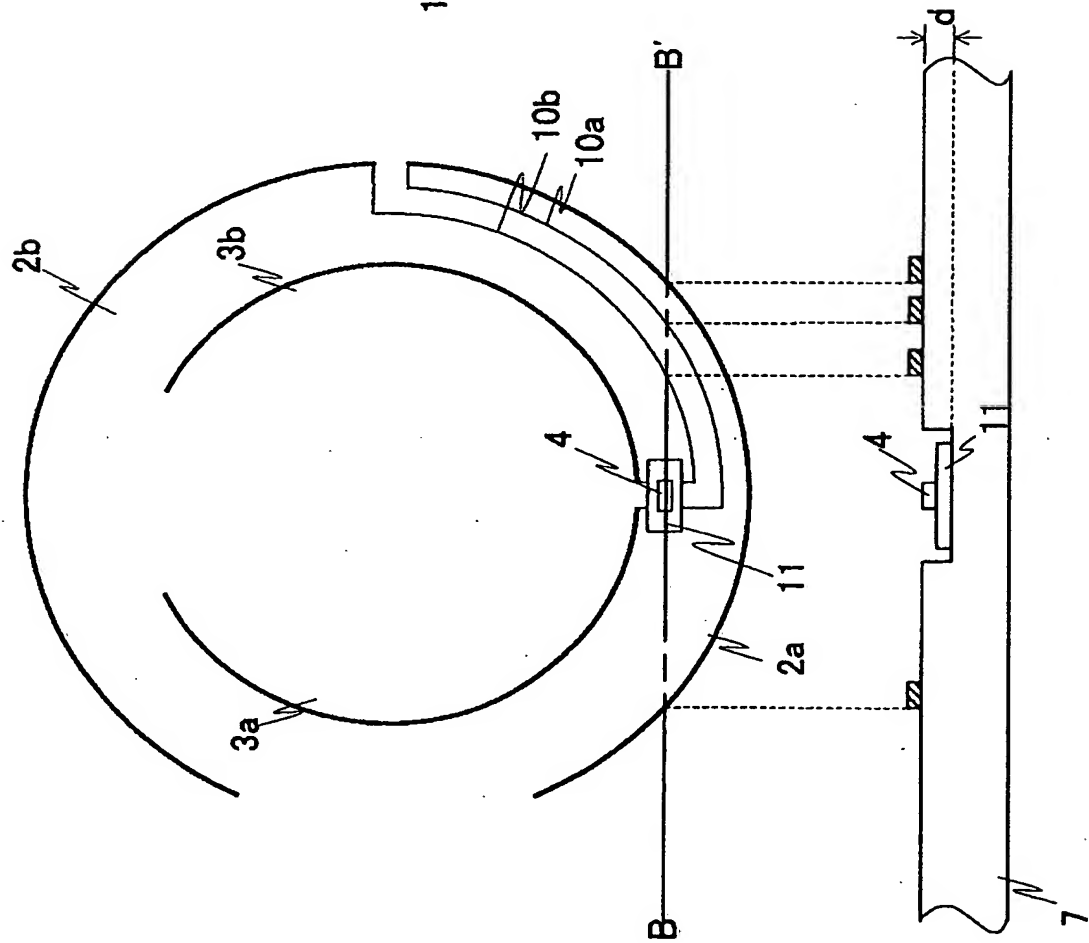


FIG. 2

(a)



(g)

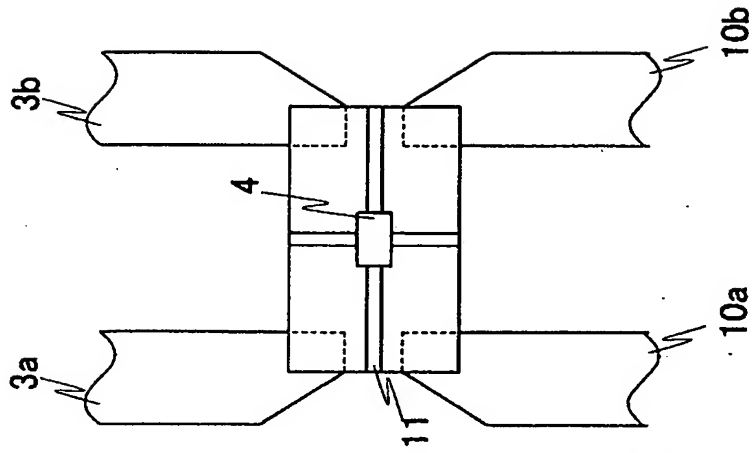


FIG.3

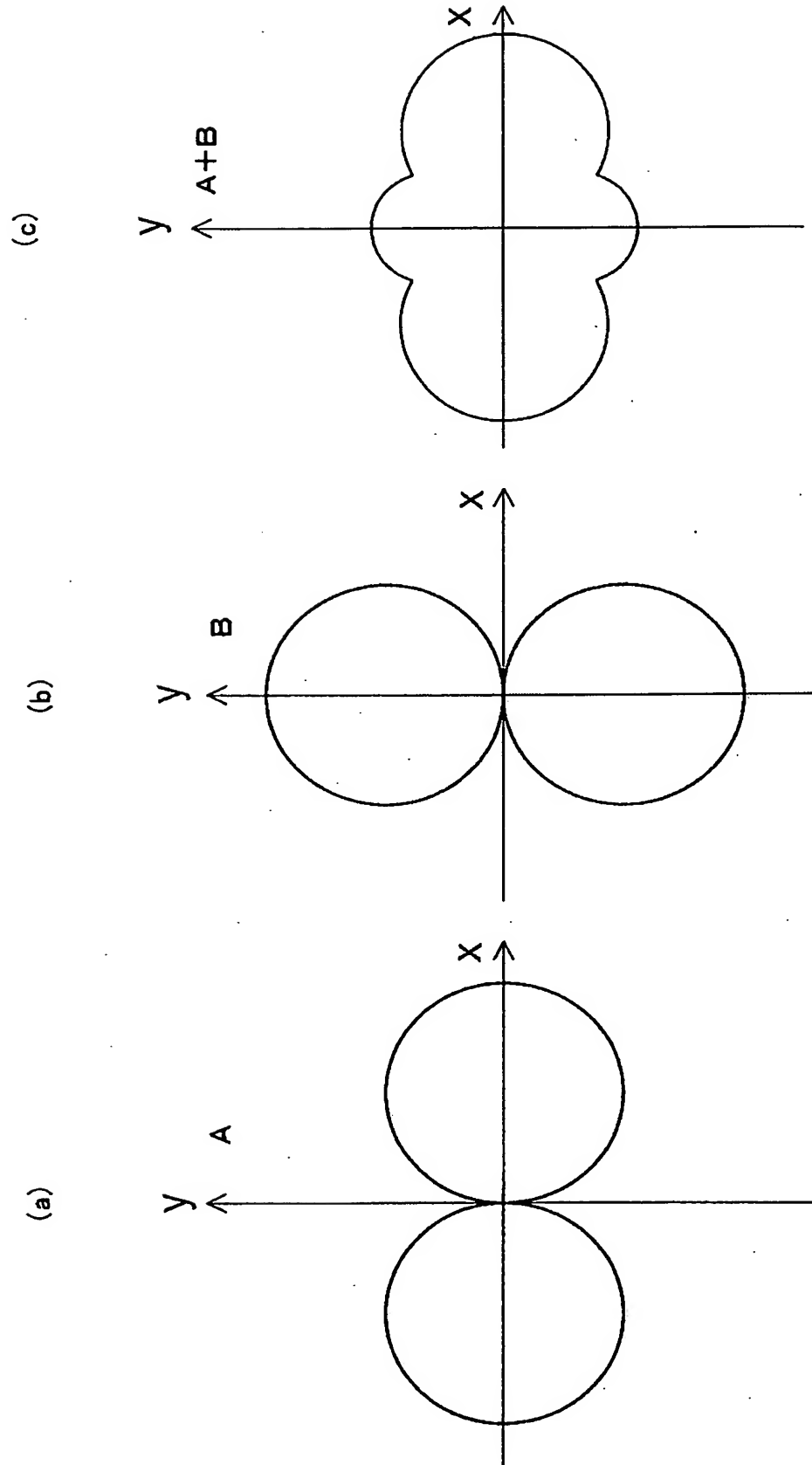
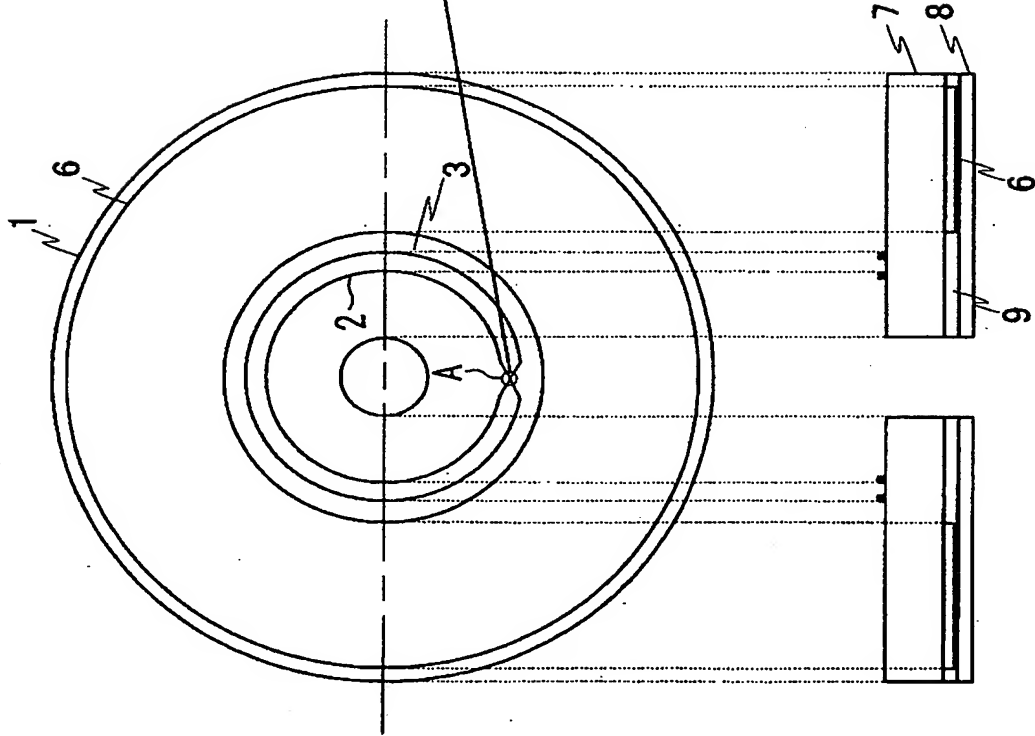


FIG.4

(a)



(b)

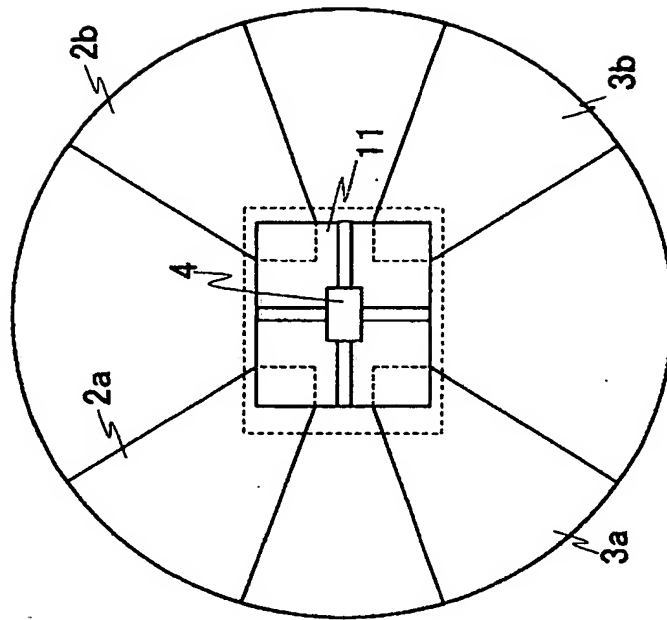


FIG. 5

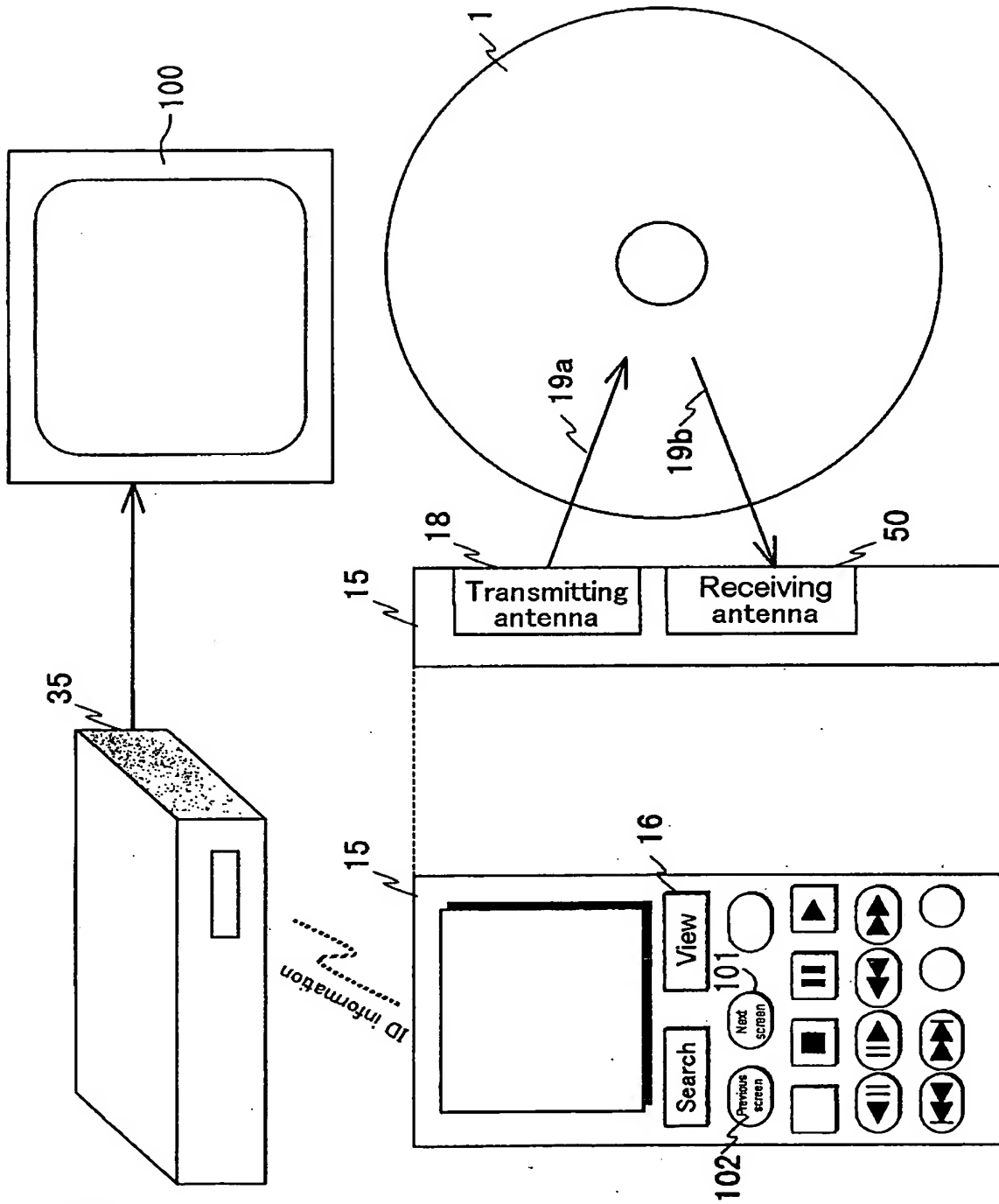
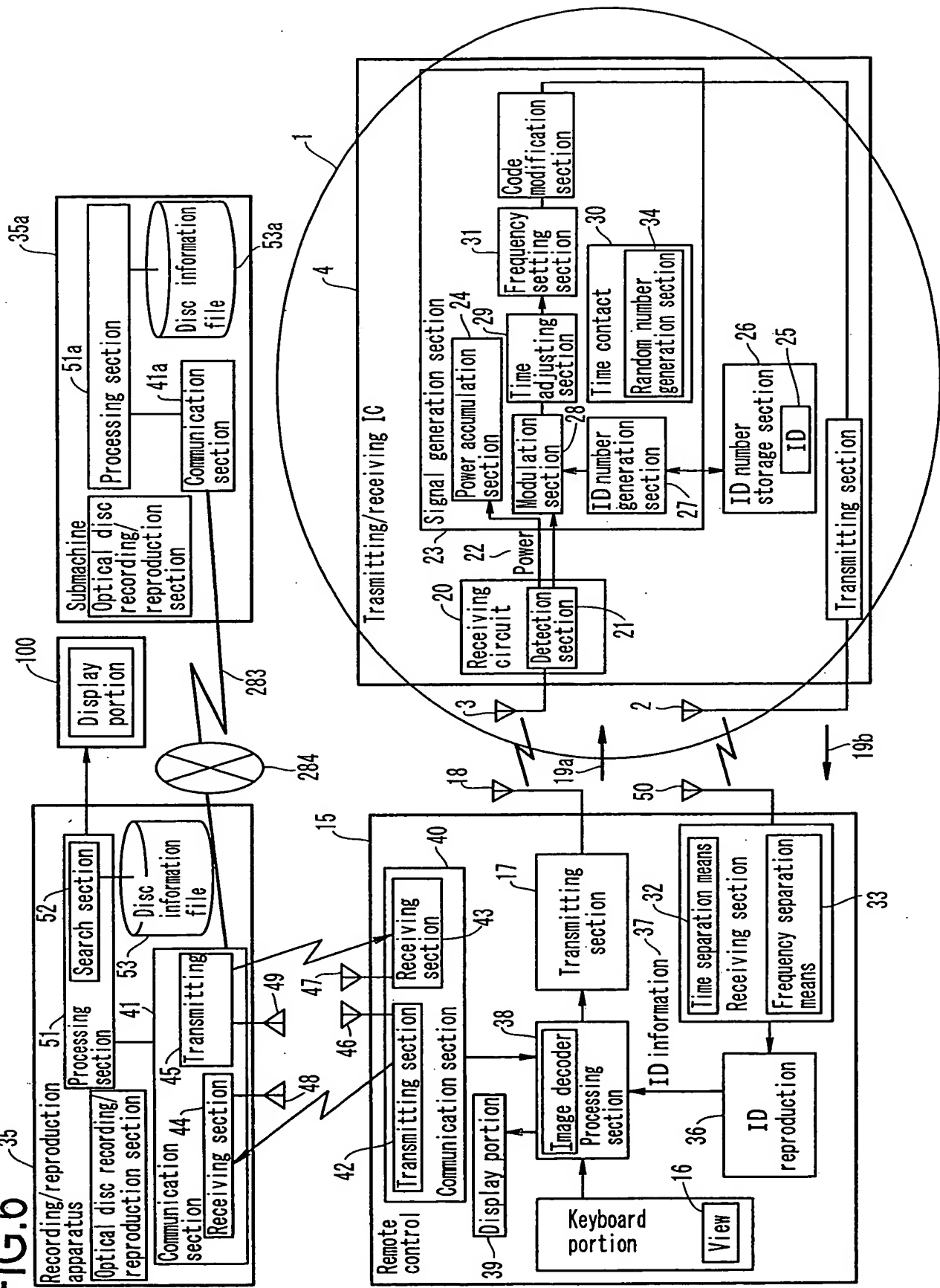
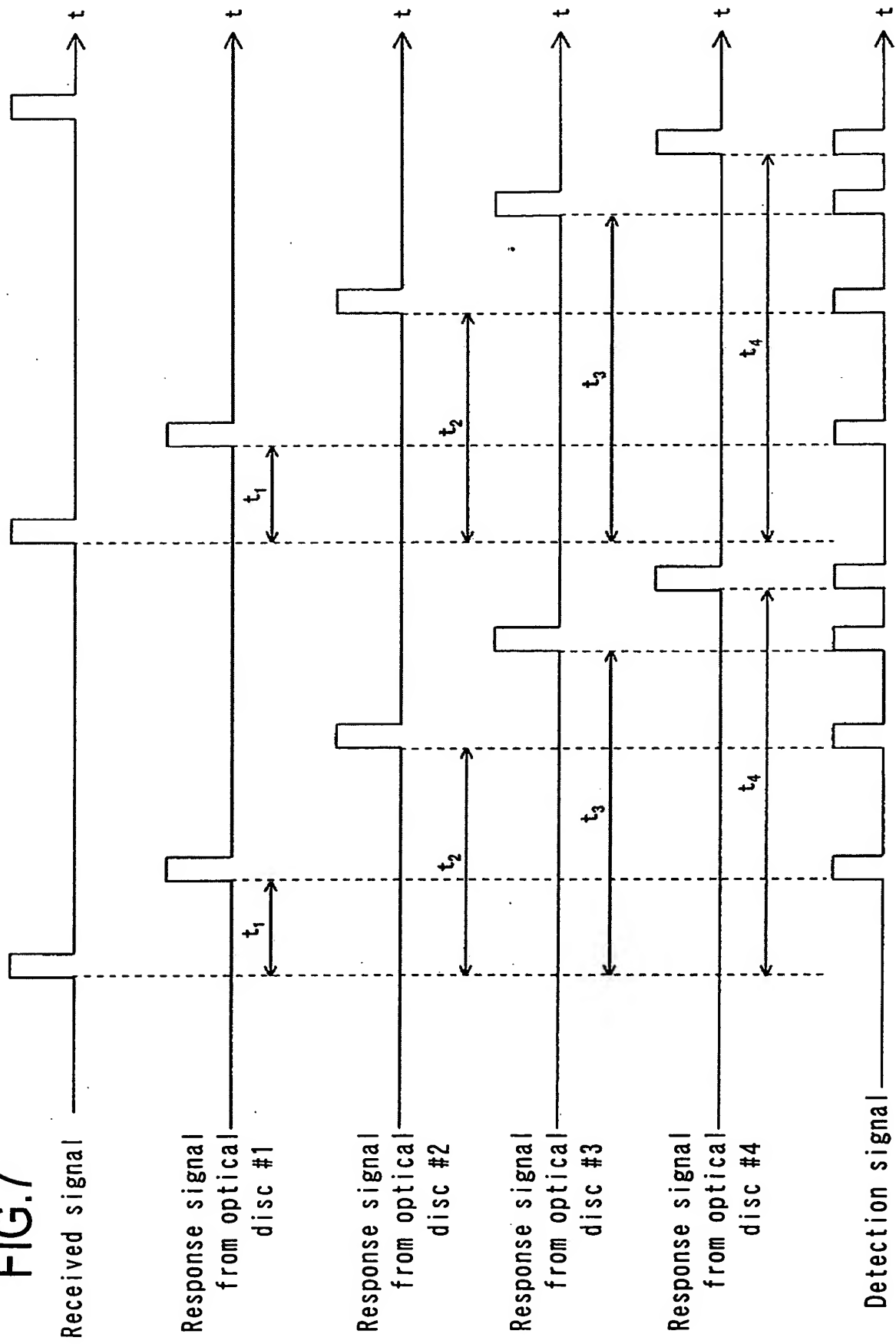


FIG. 6



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FIG. 7



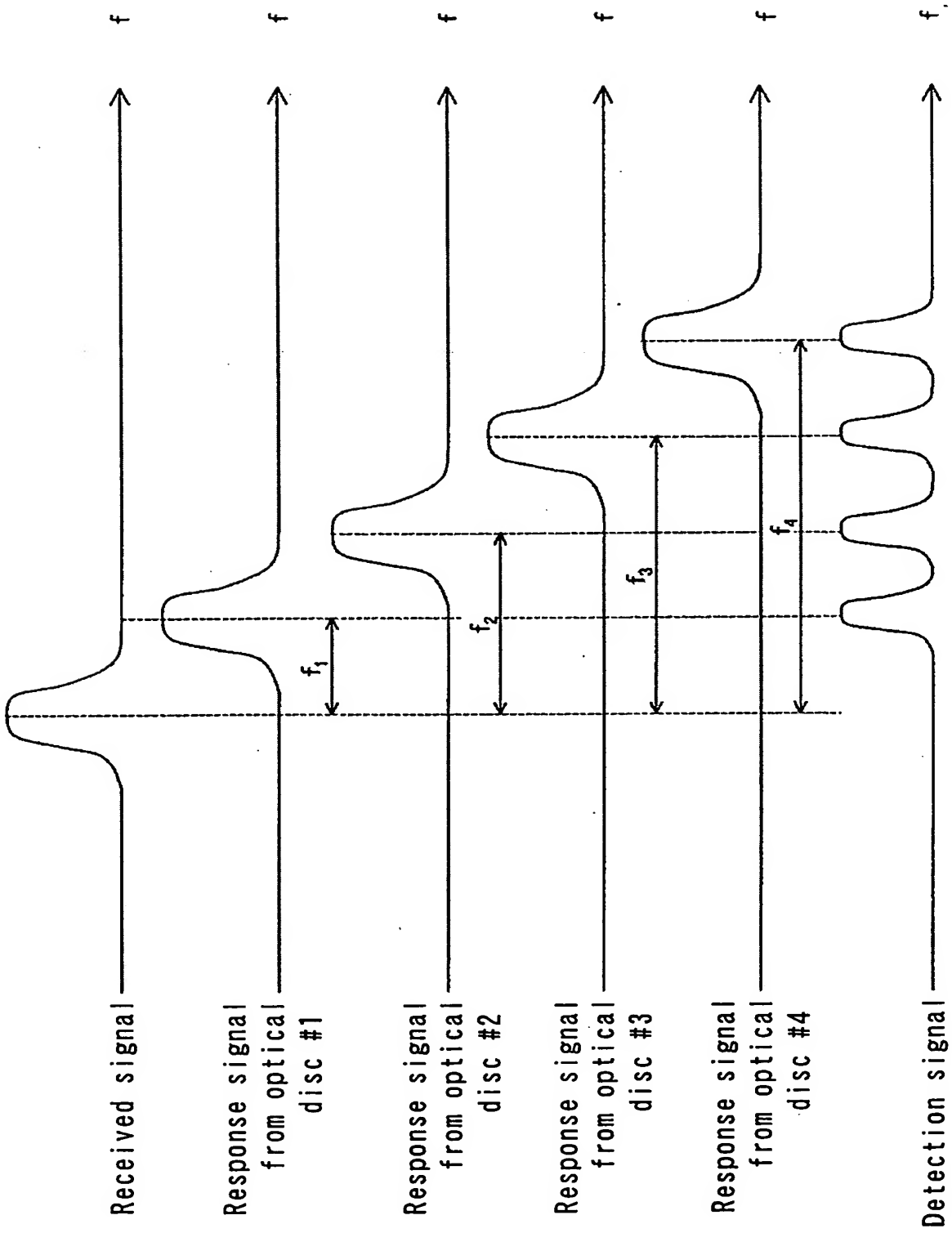
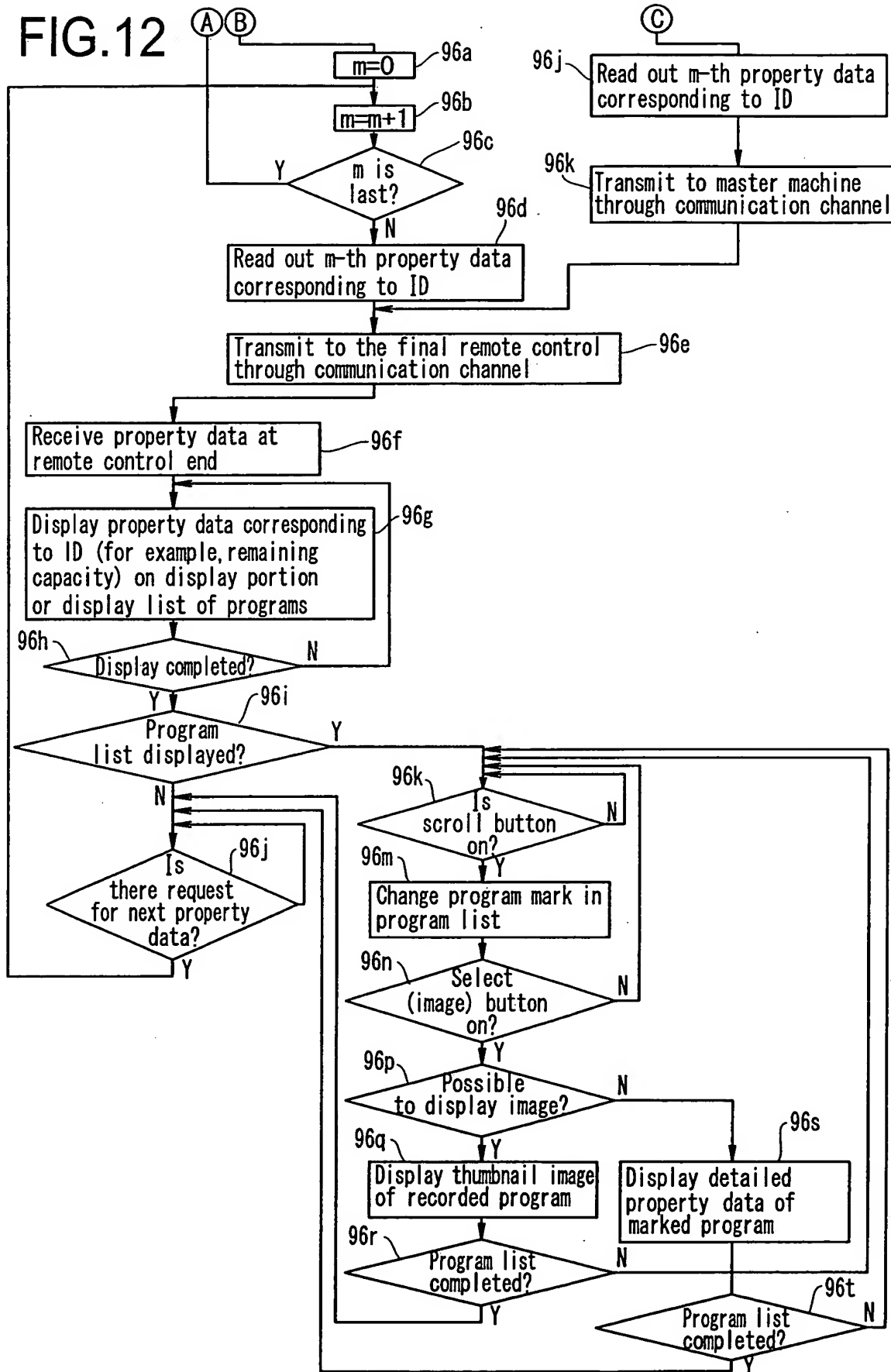


FIG. 10

[illegible]

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FIG.12



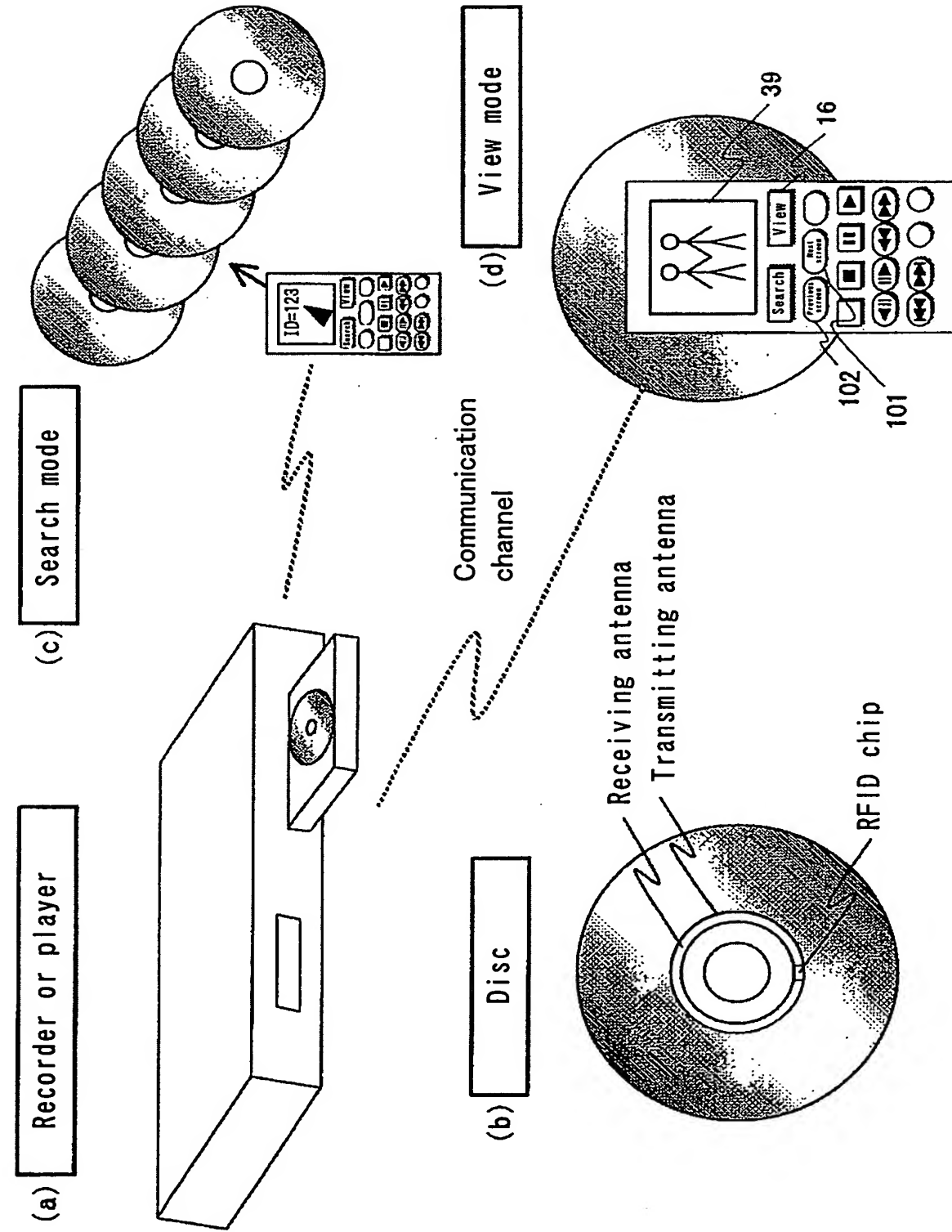


FIG. 14

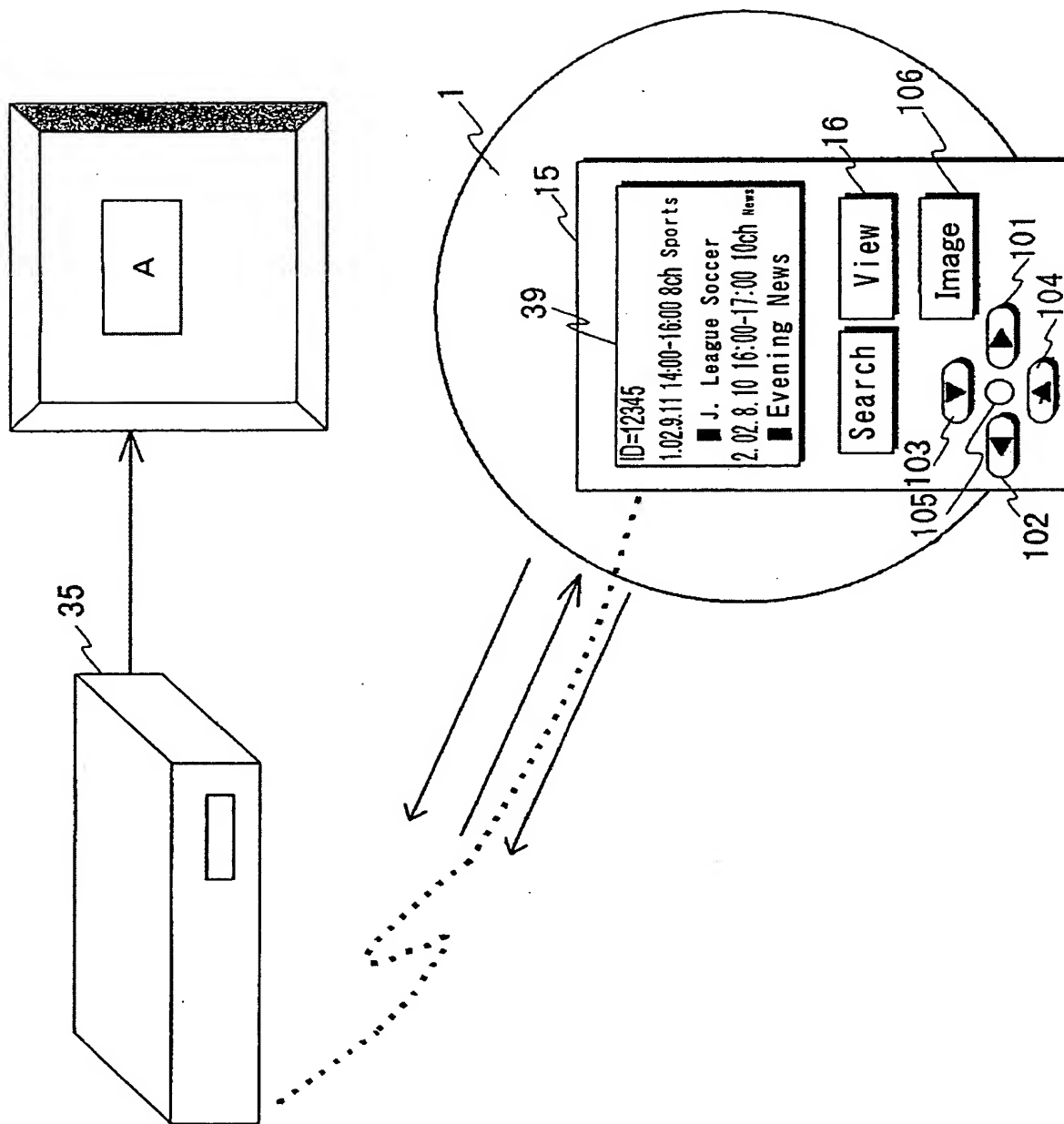


FIG. 15

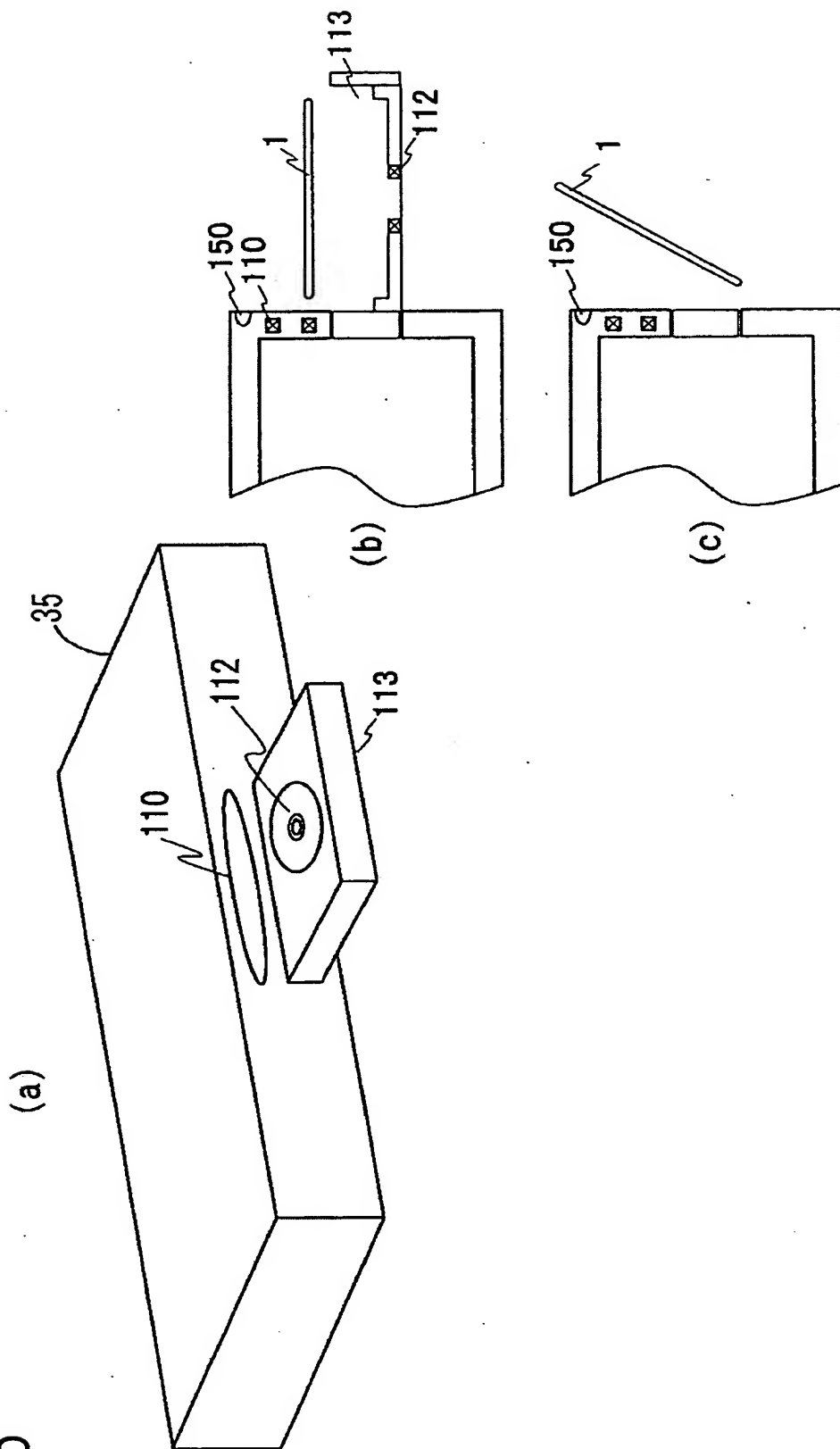


FIG.16

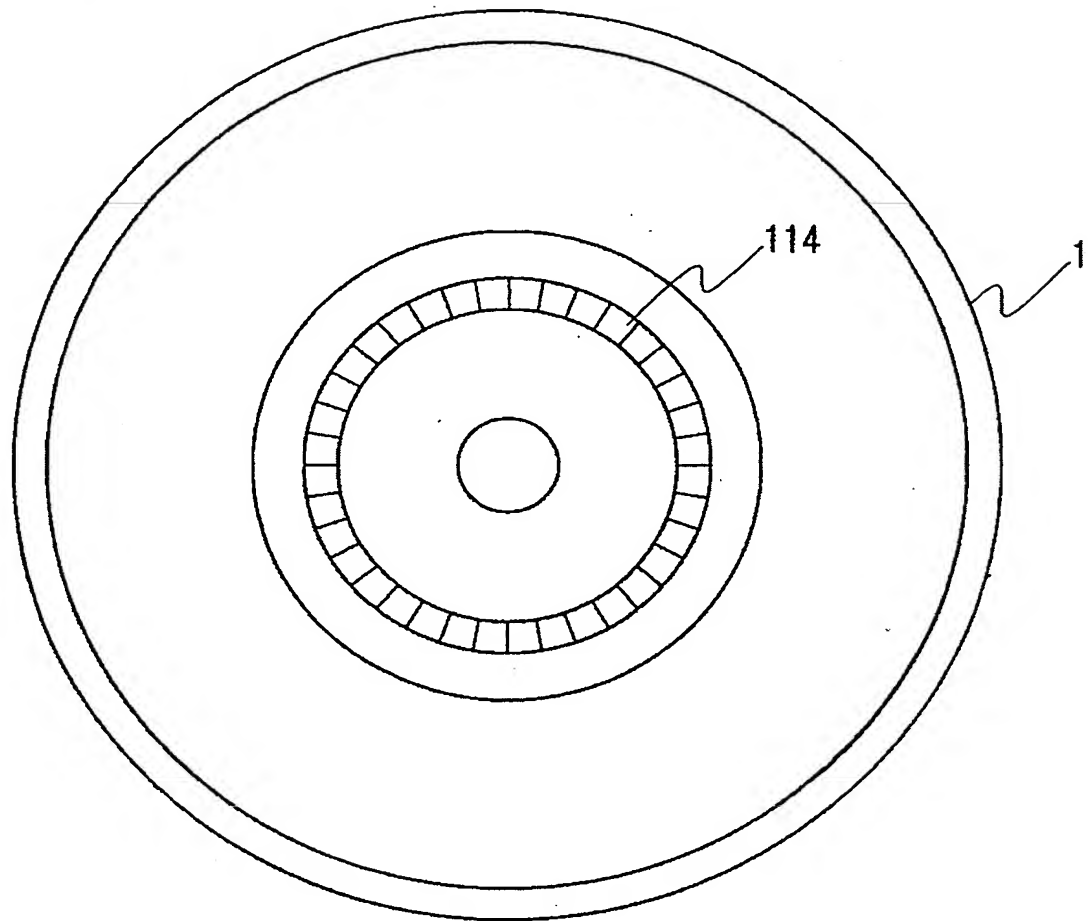


FIG.17

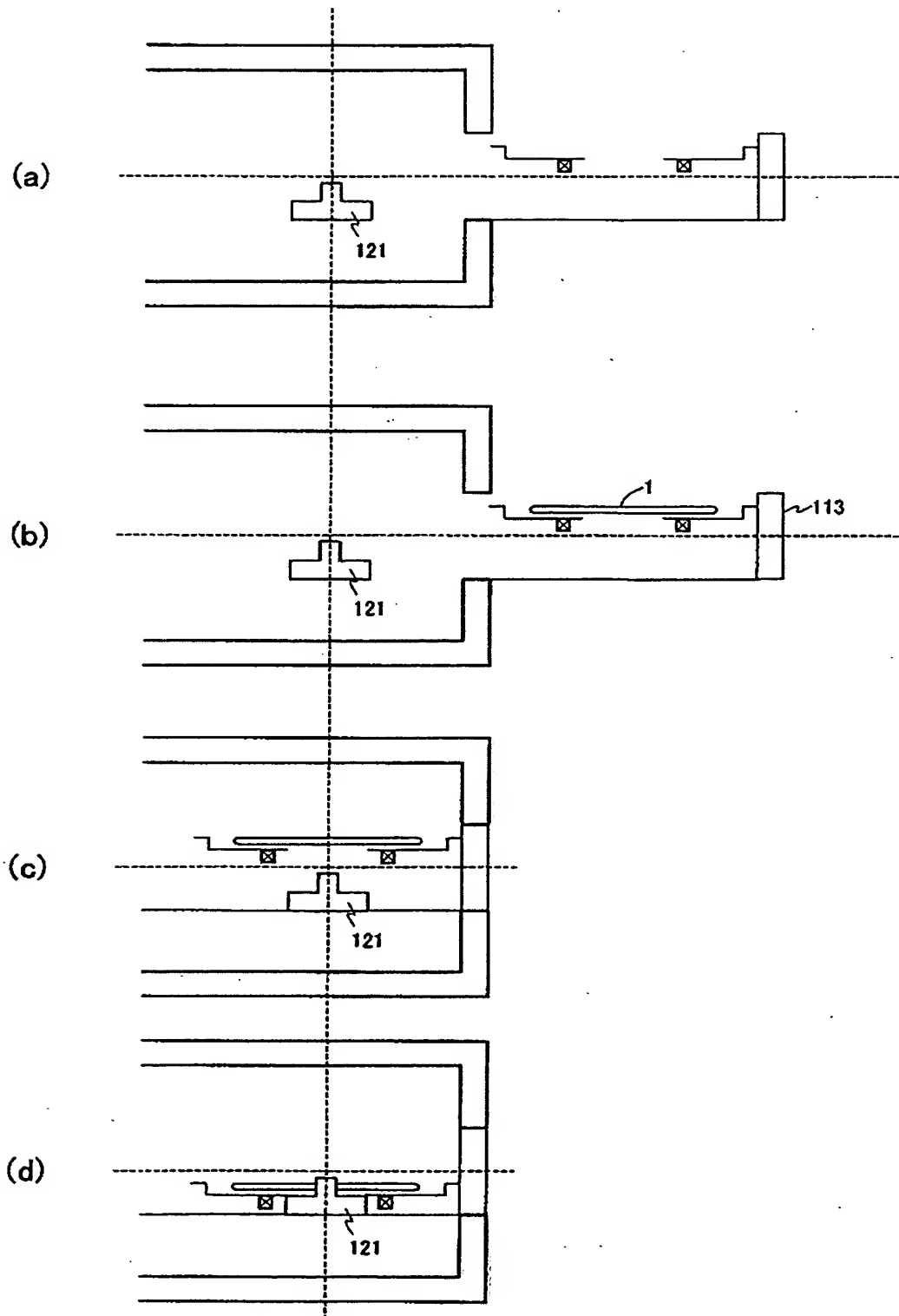
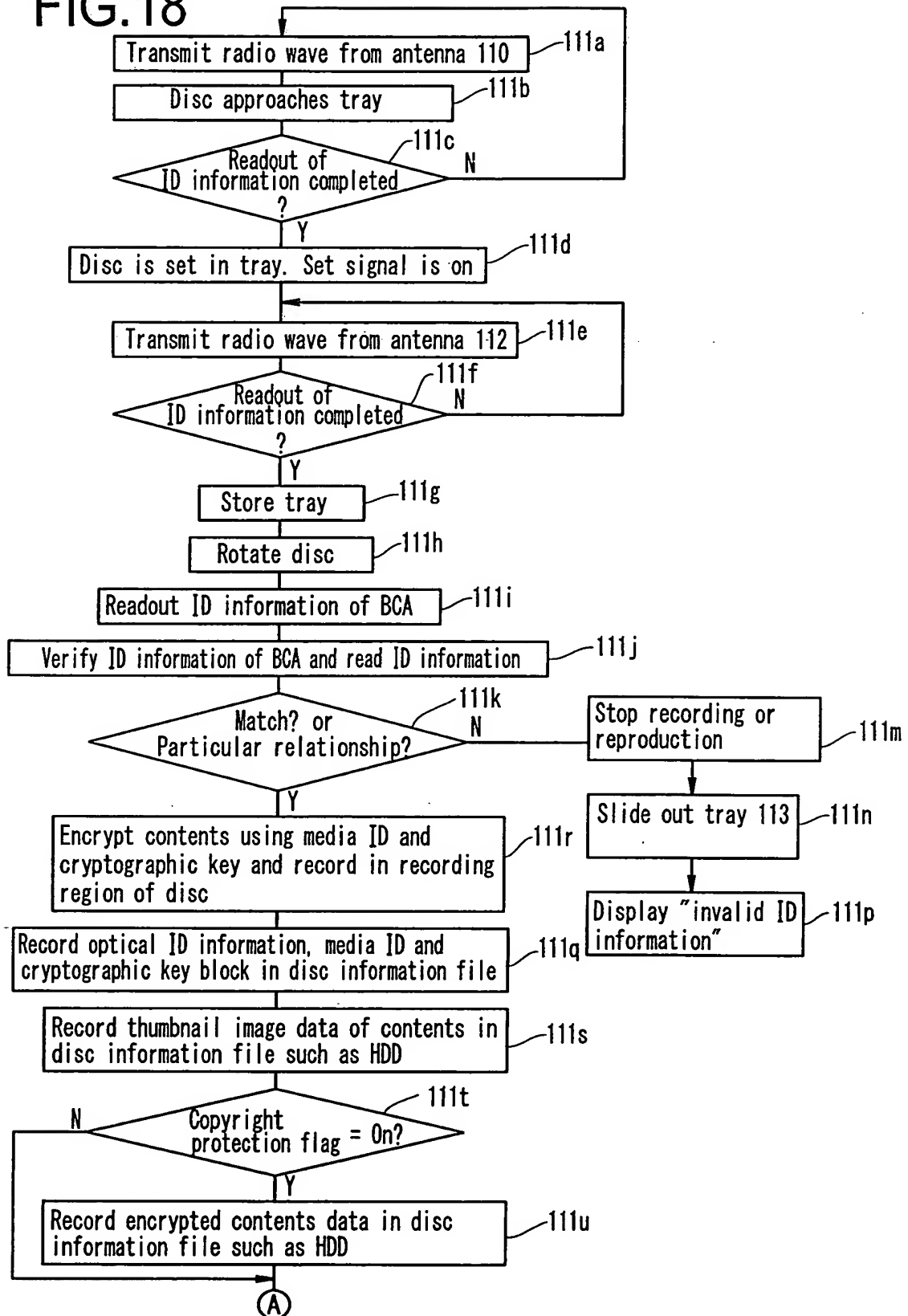


FIG.18



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FIG.19

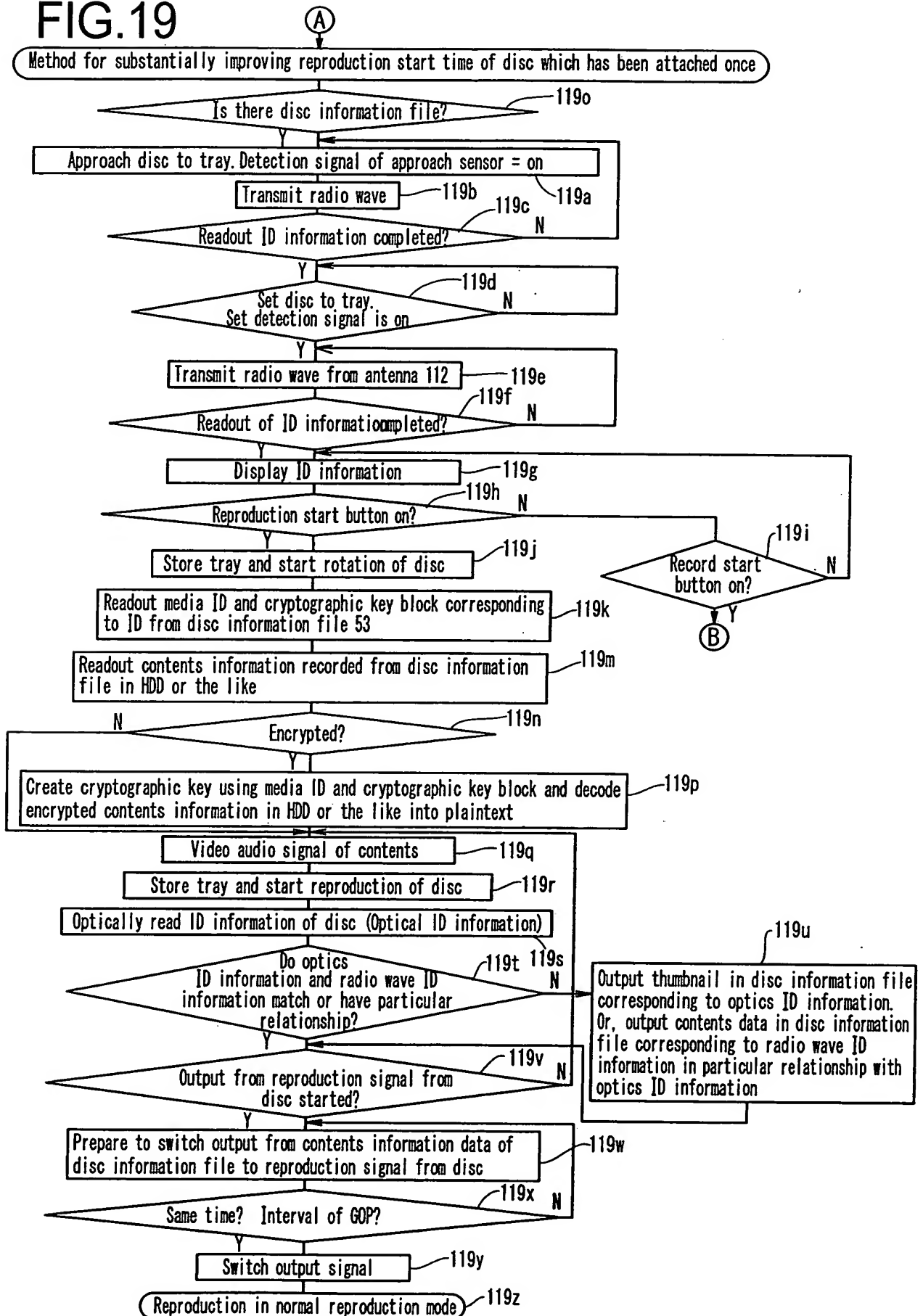


FIG.20

(B)

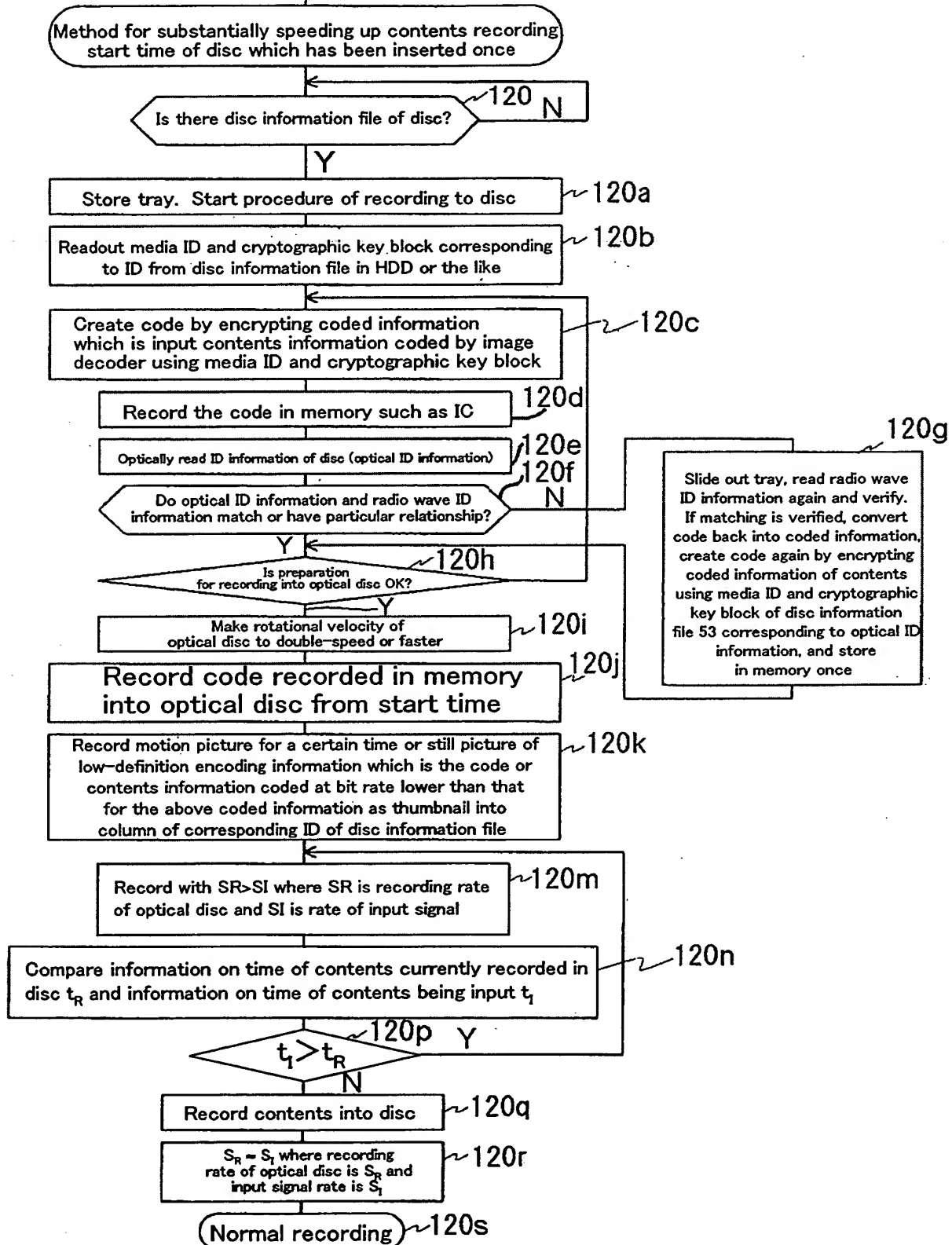


FIG. 21

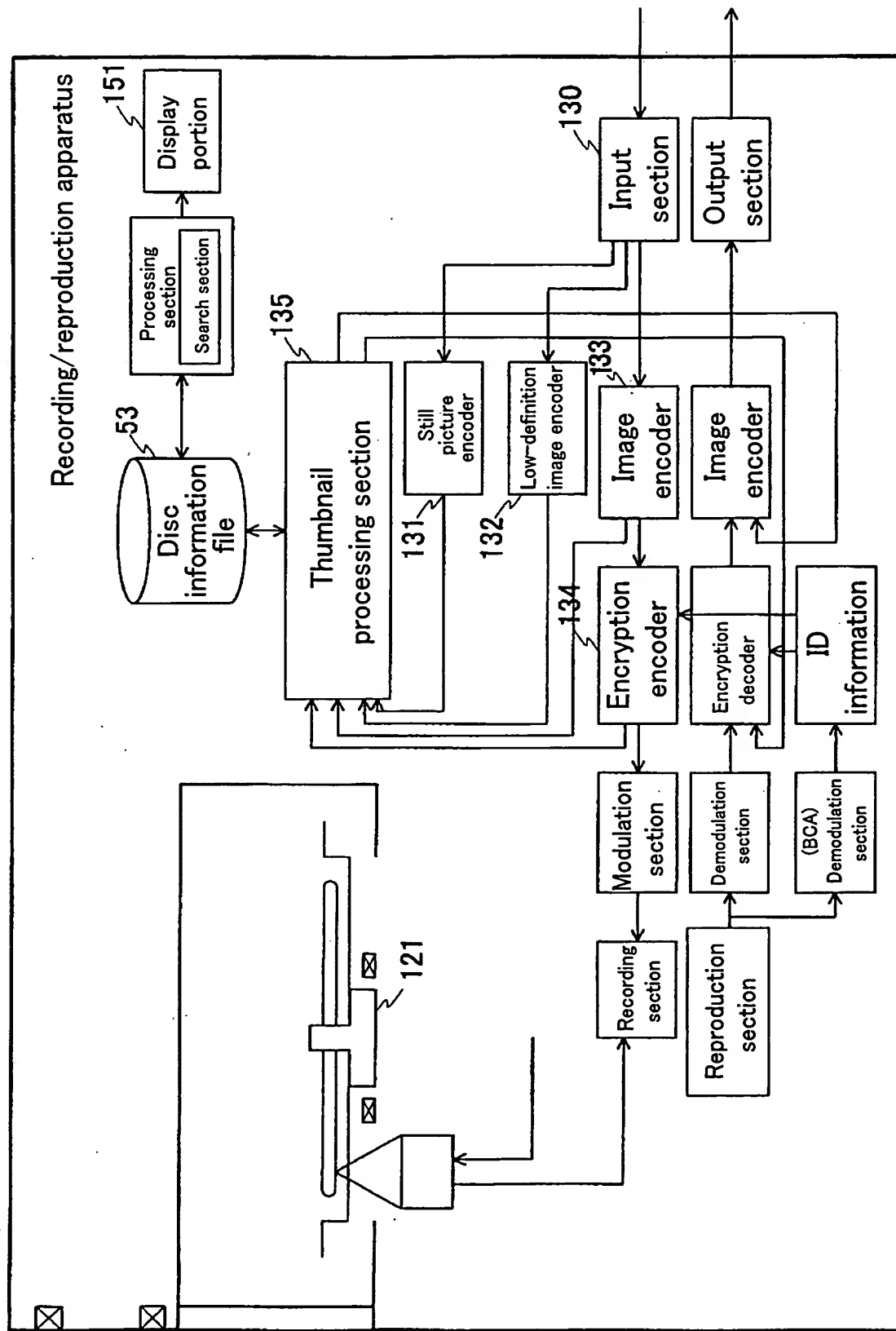


FIG.22

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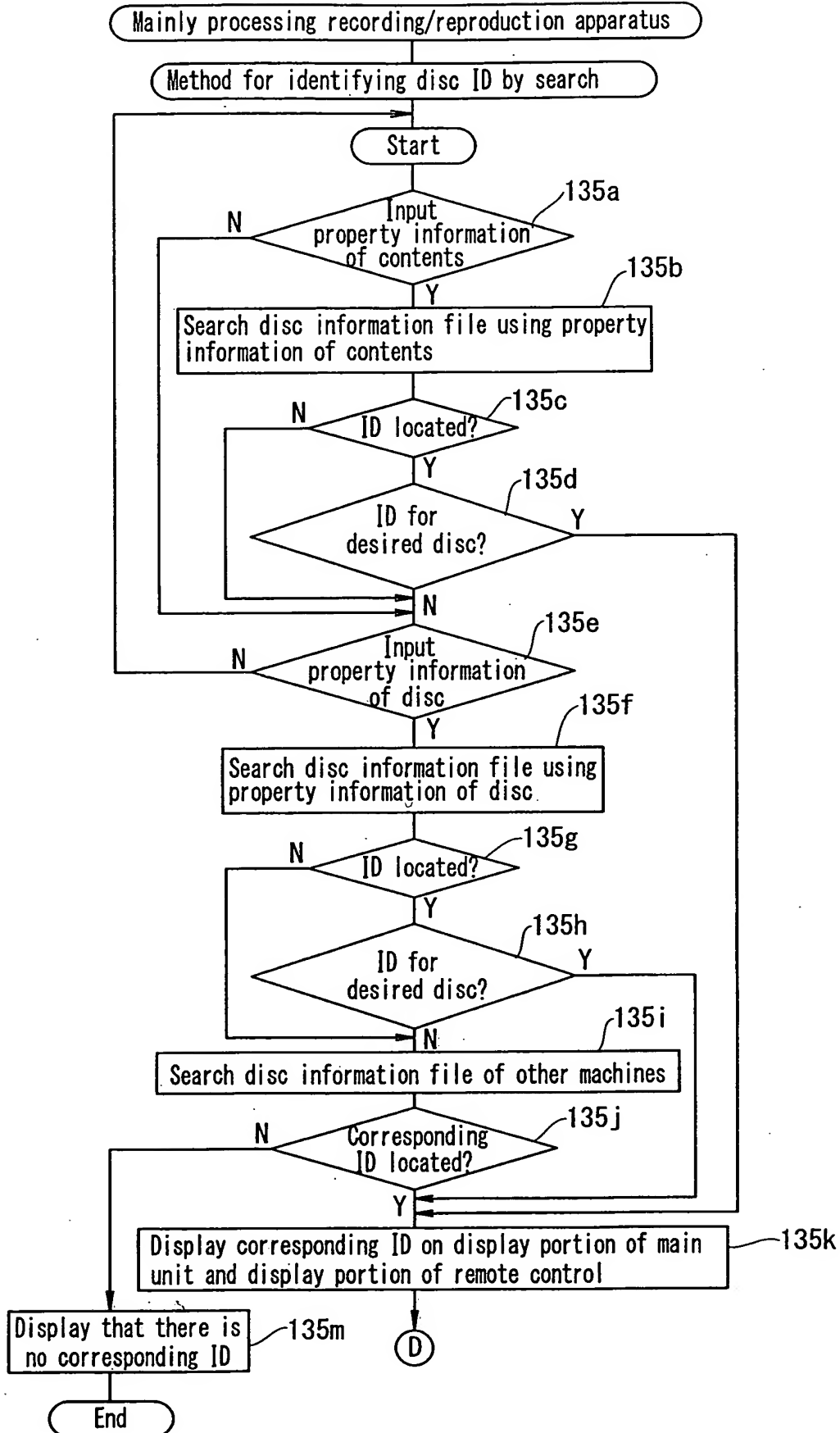


FIG.23

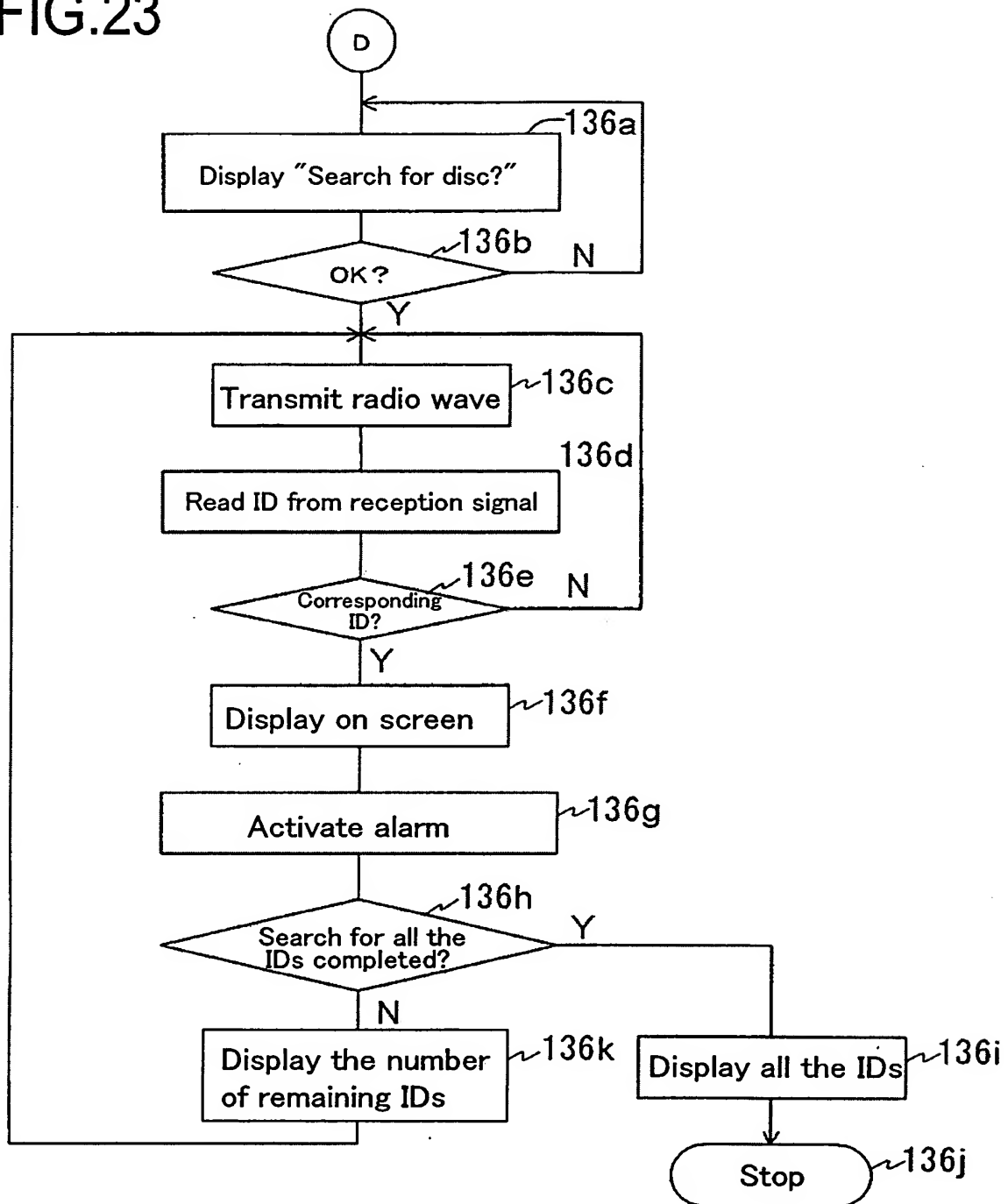


FIG.24

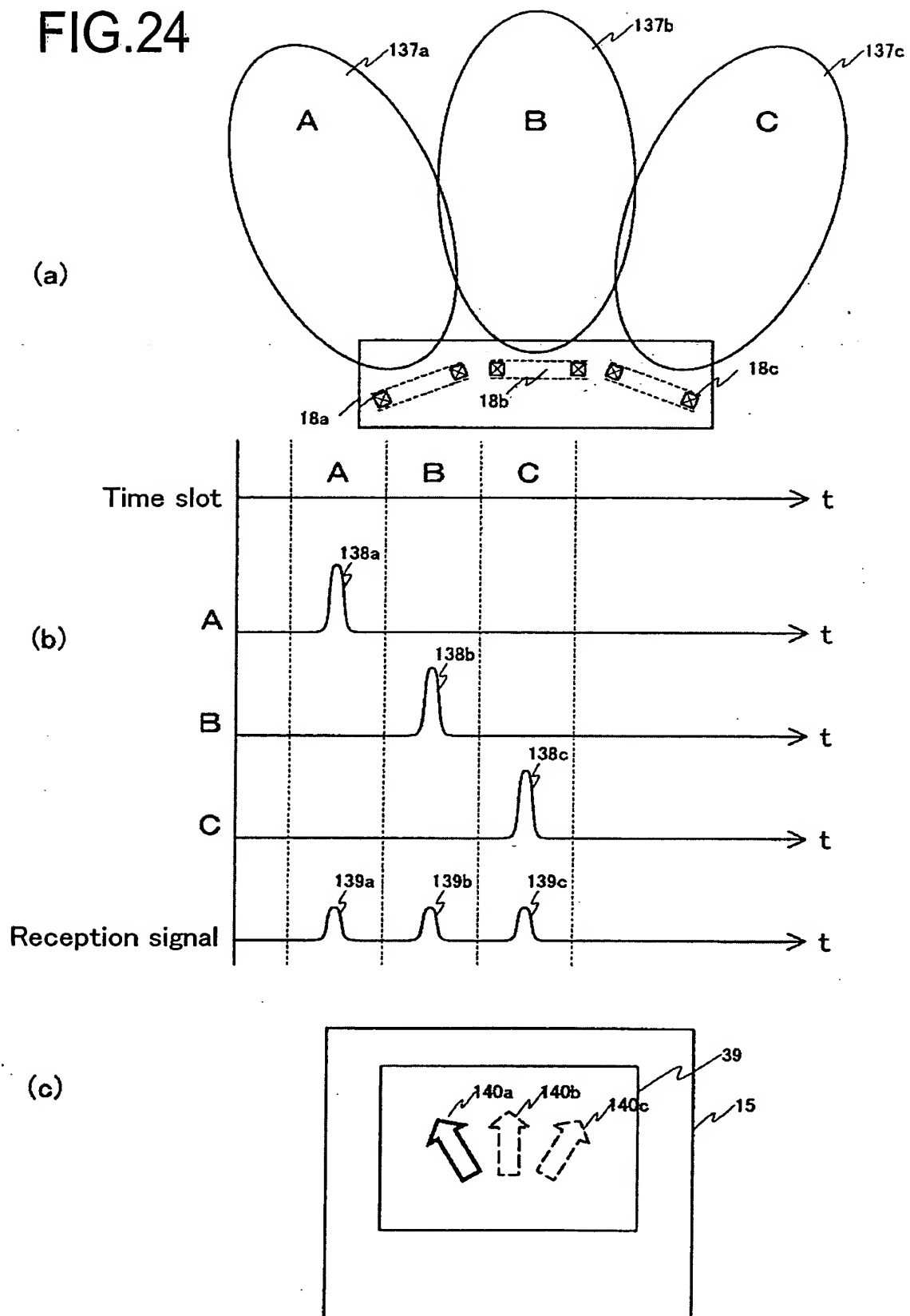
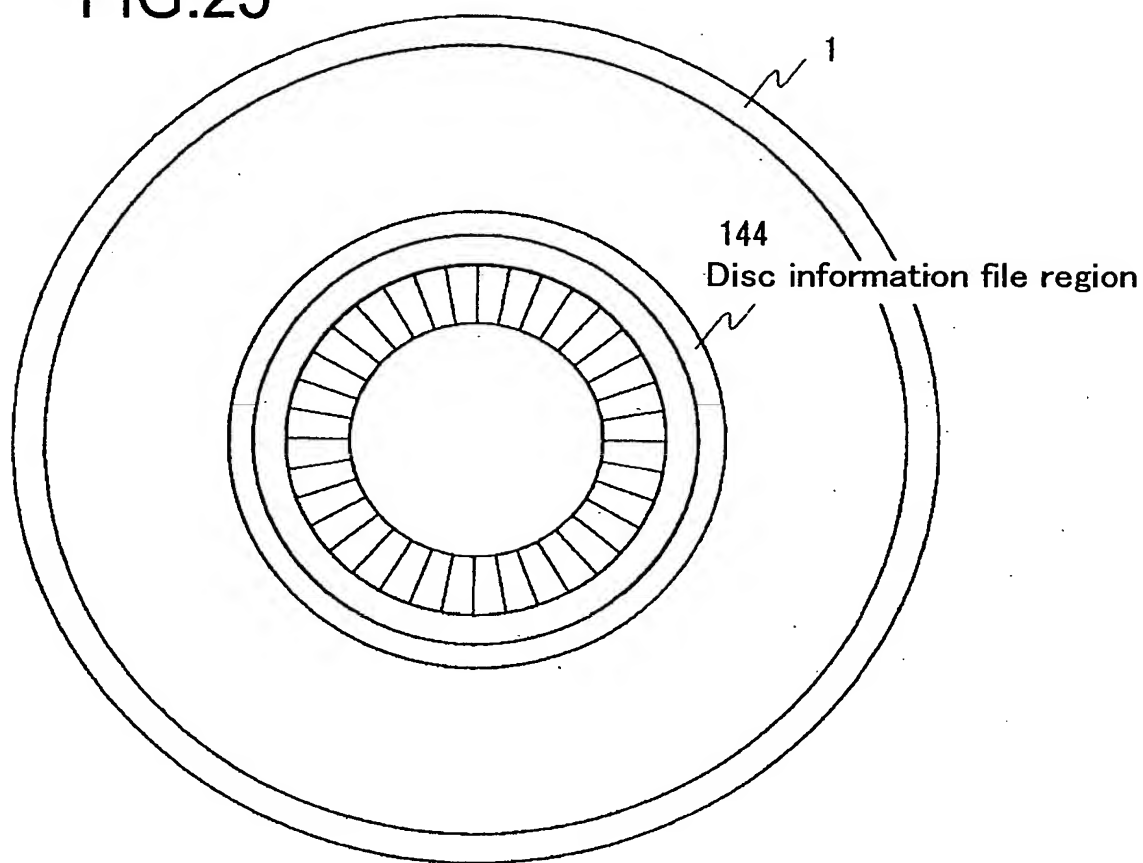


FIG.25



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FIG.26

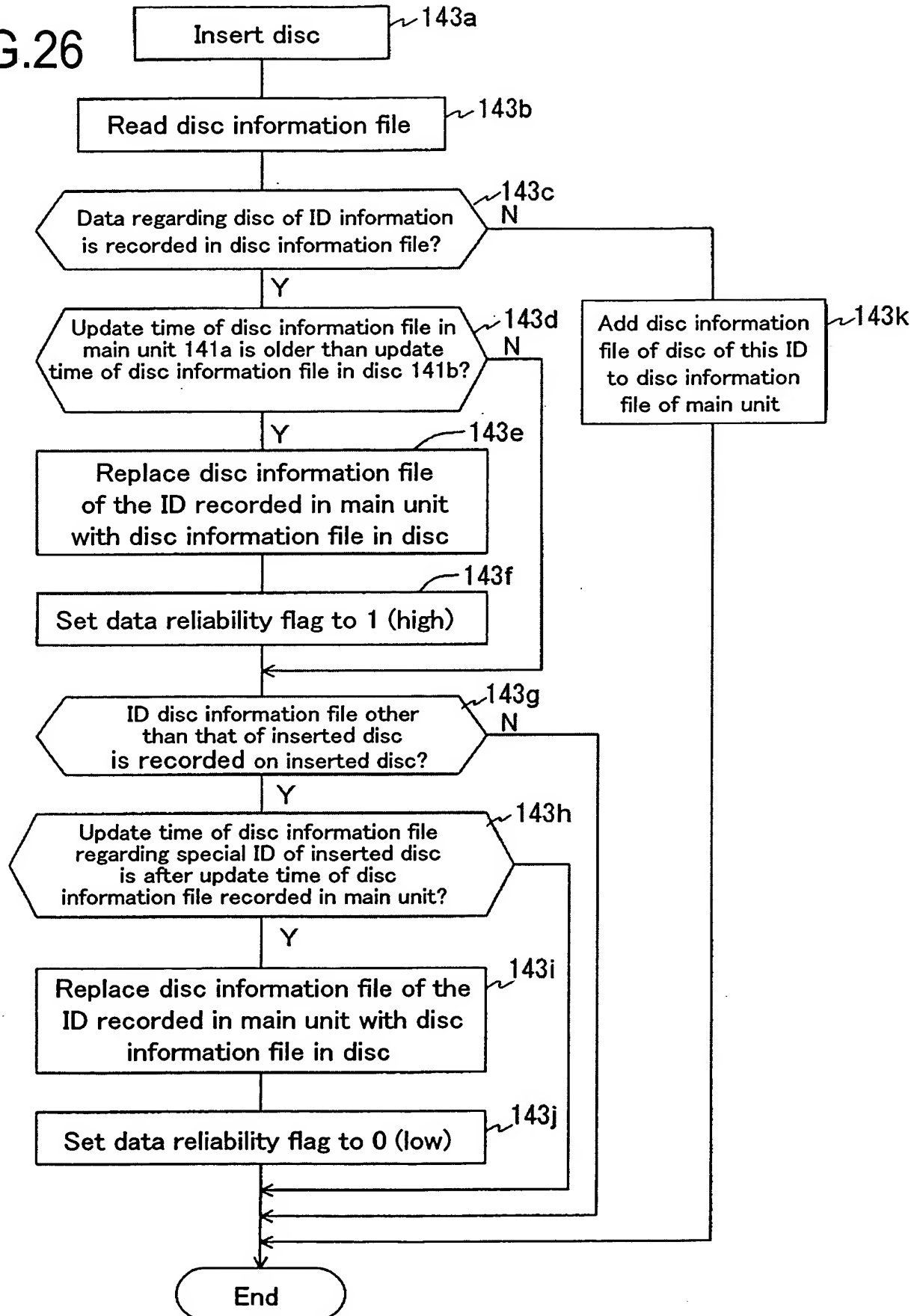


FIG.27

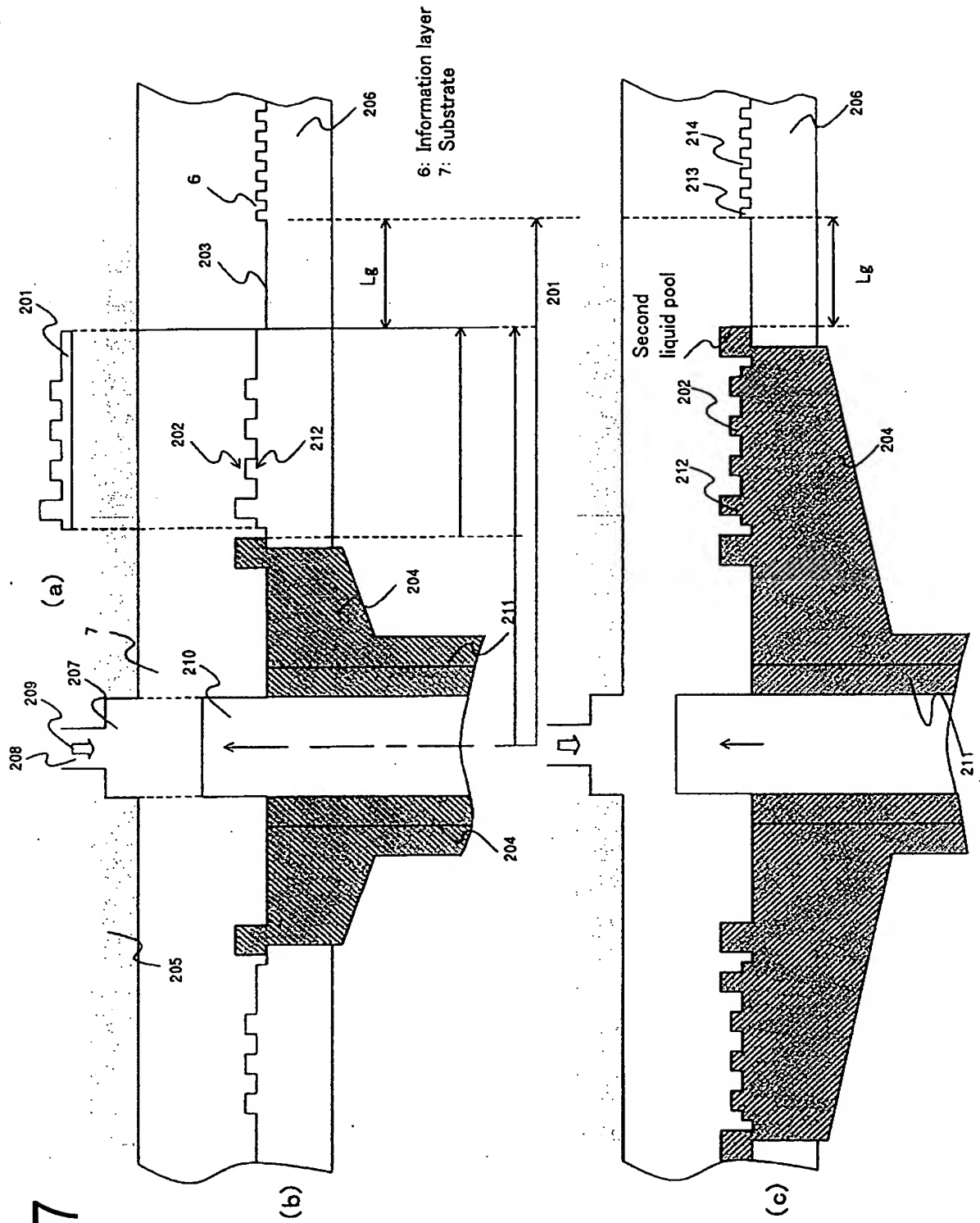
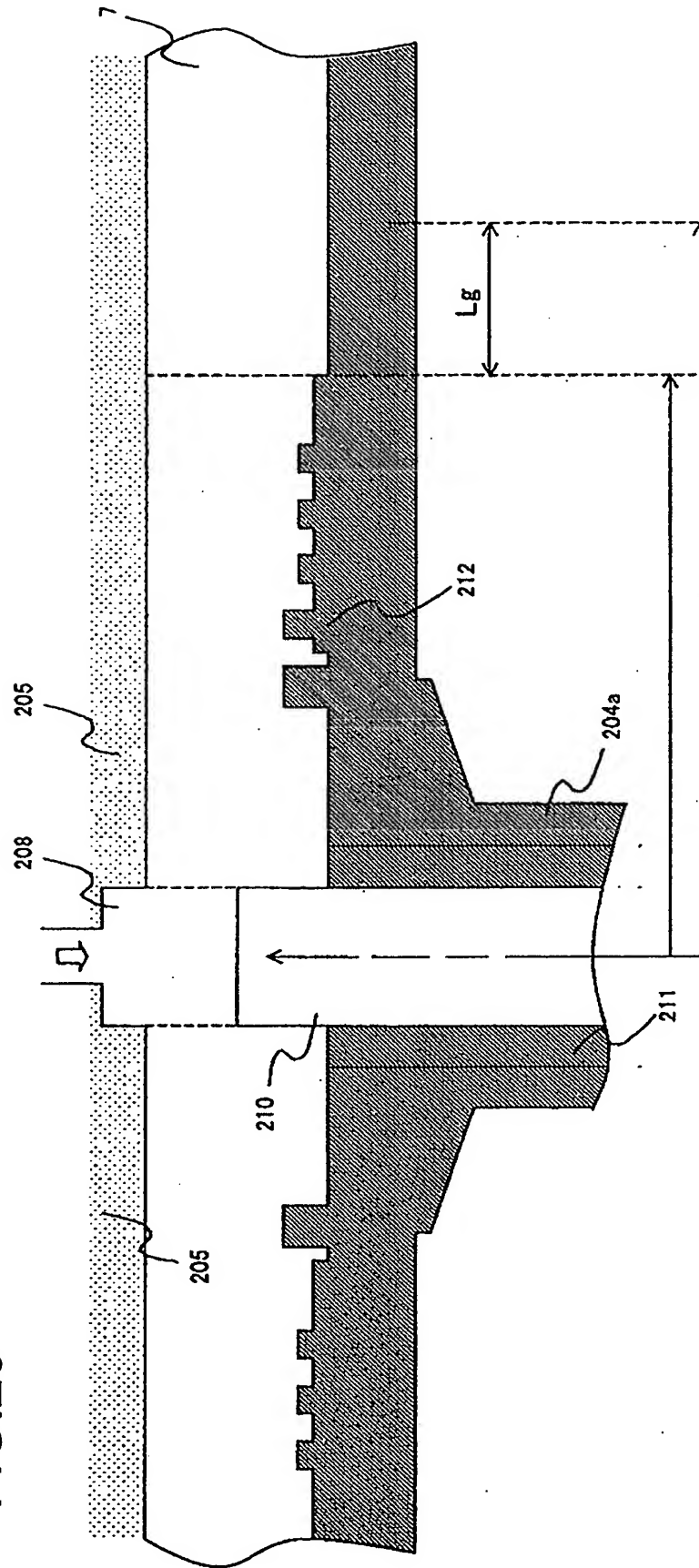
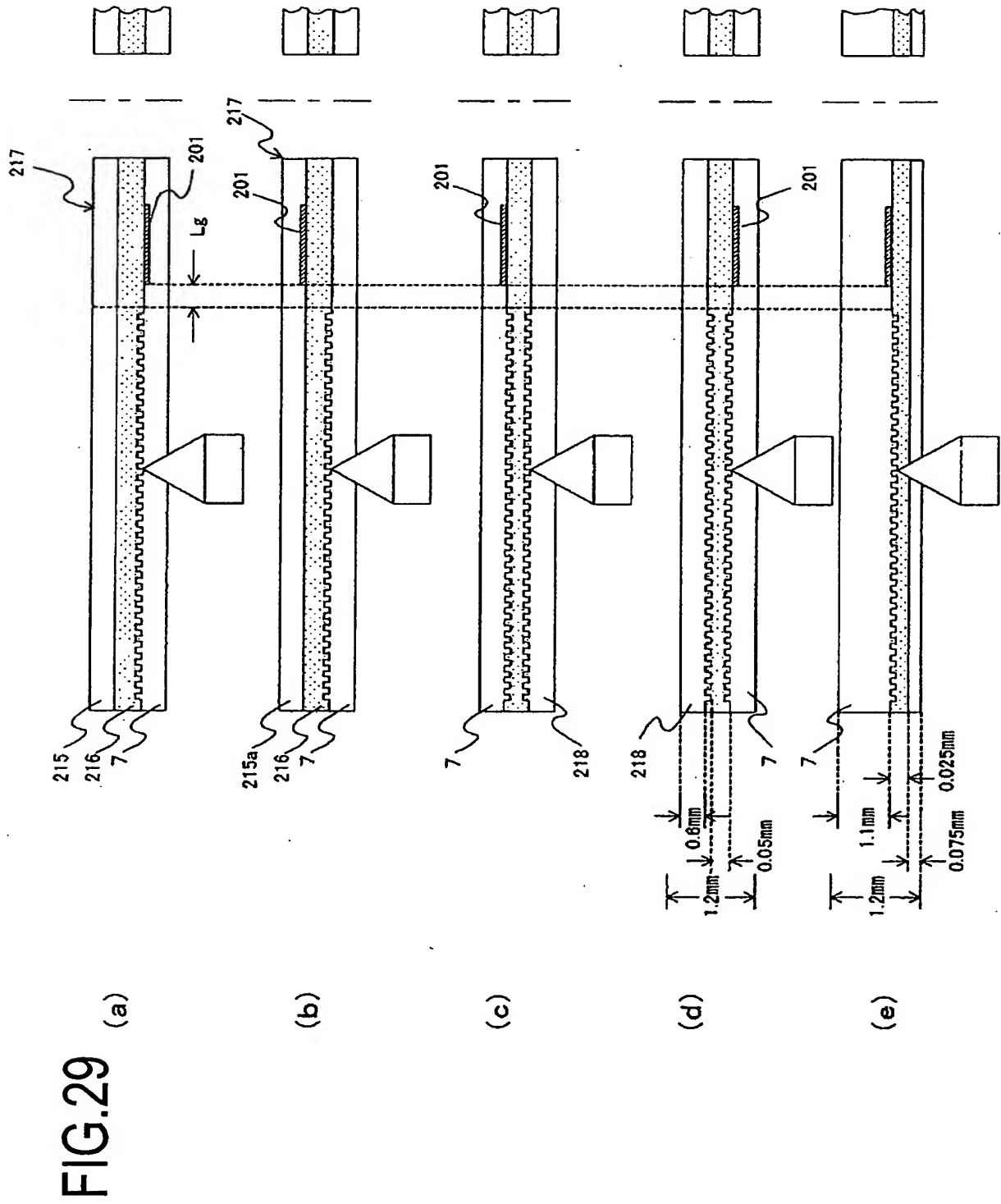


FIG. 28





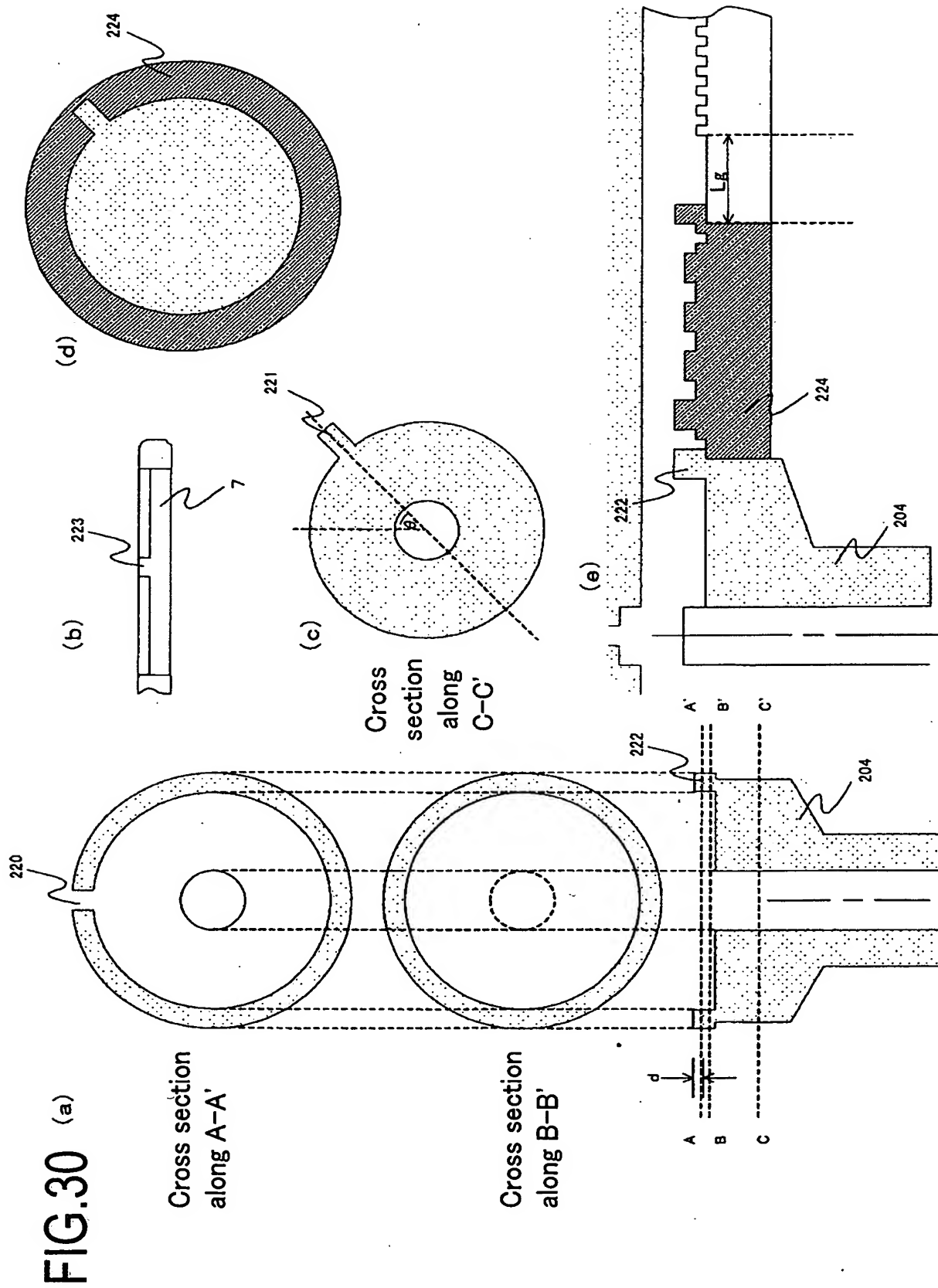
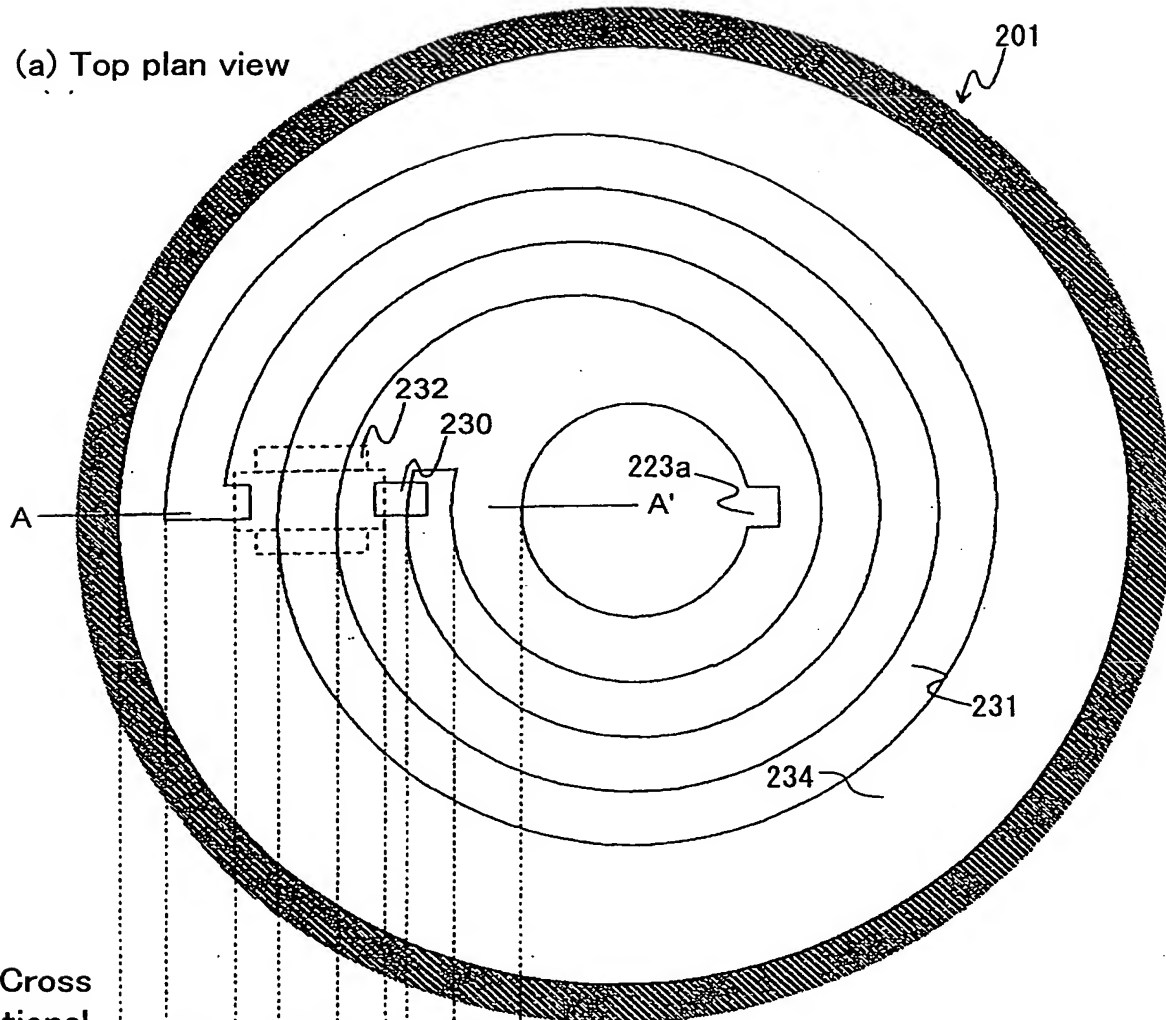
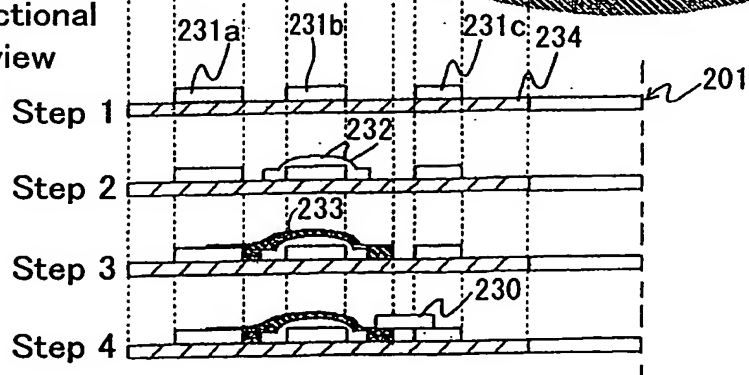


FIG.31

(a) Top plan view



(b) Cross sectional view



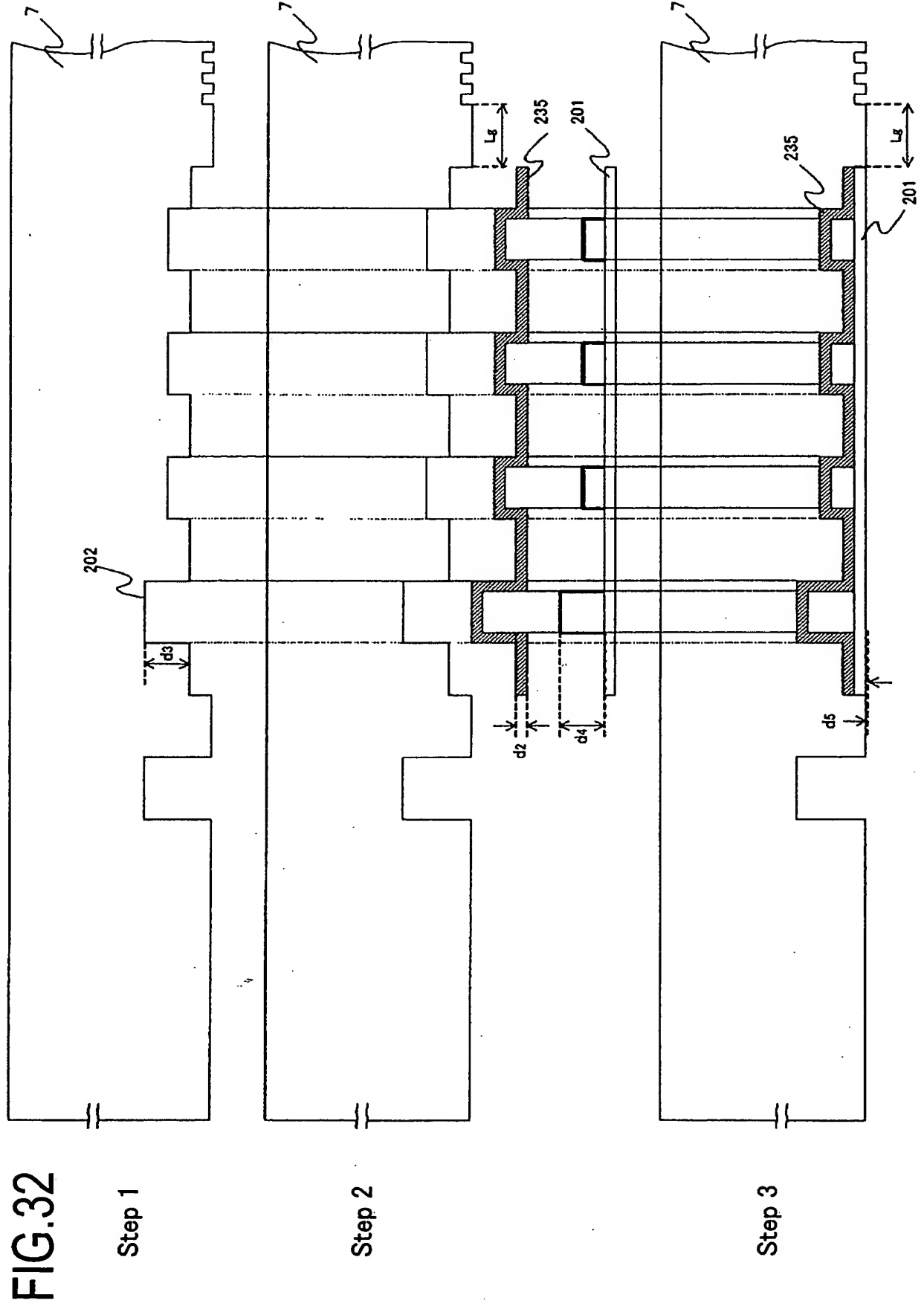
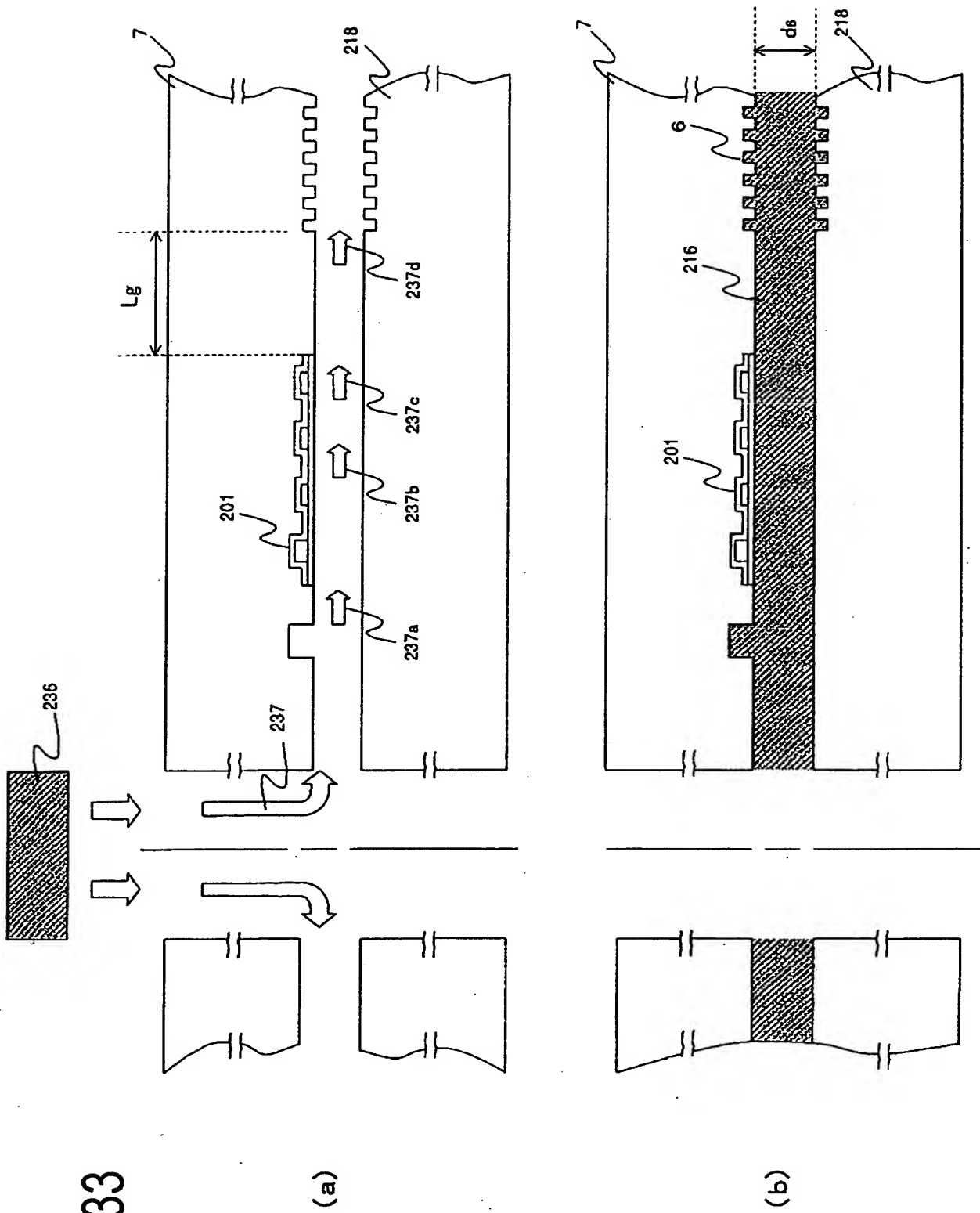
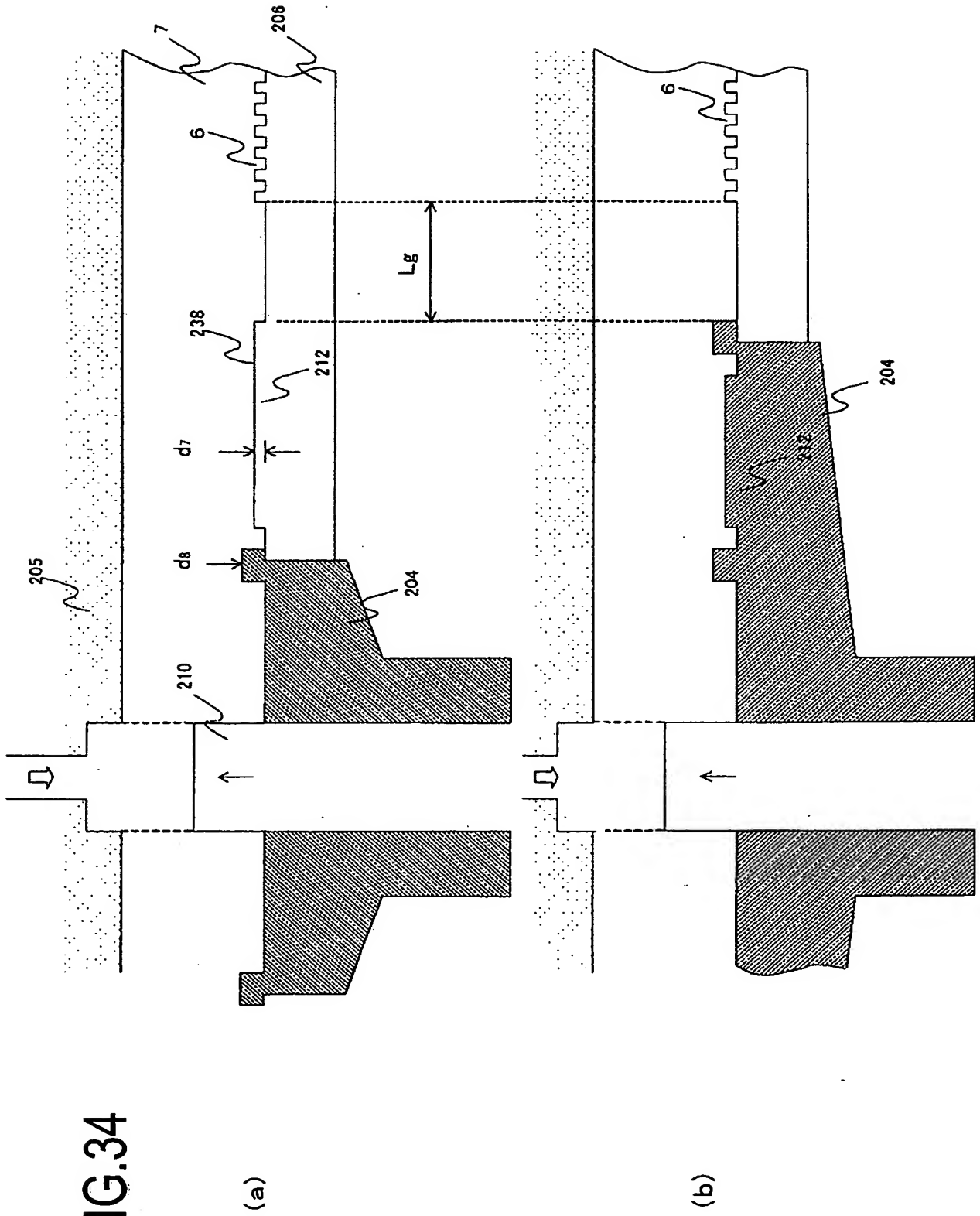


FIG.33





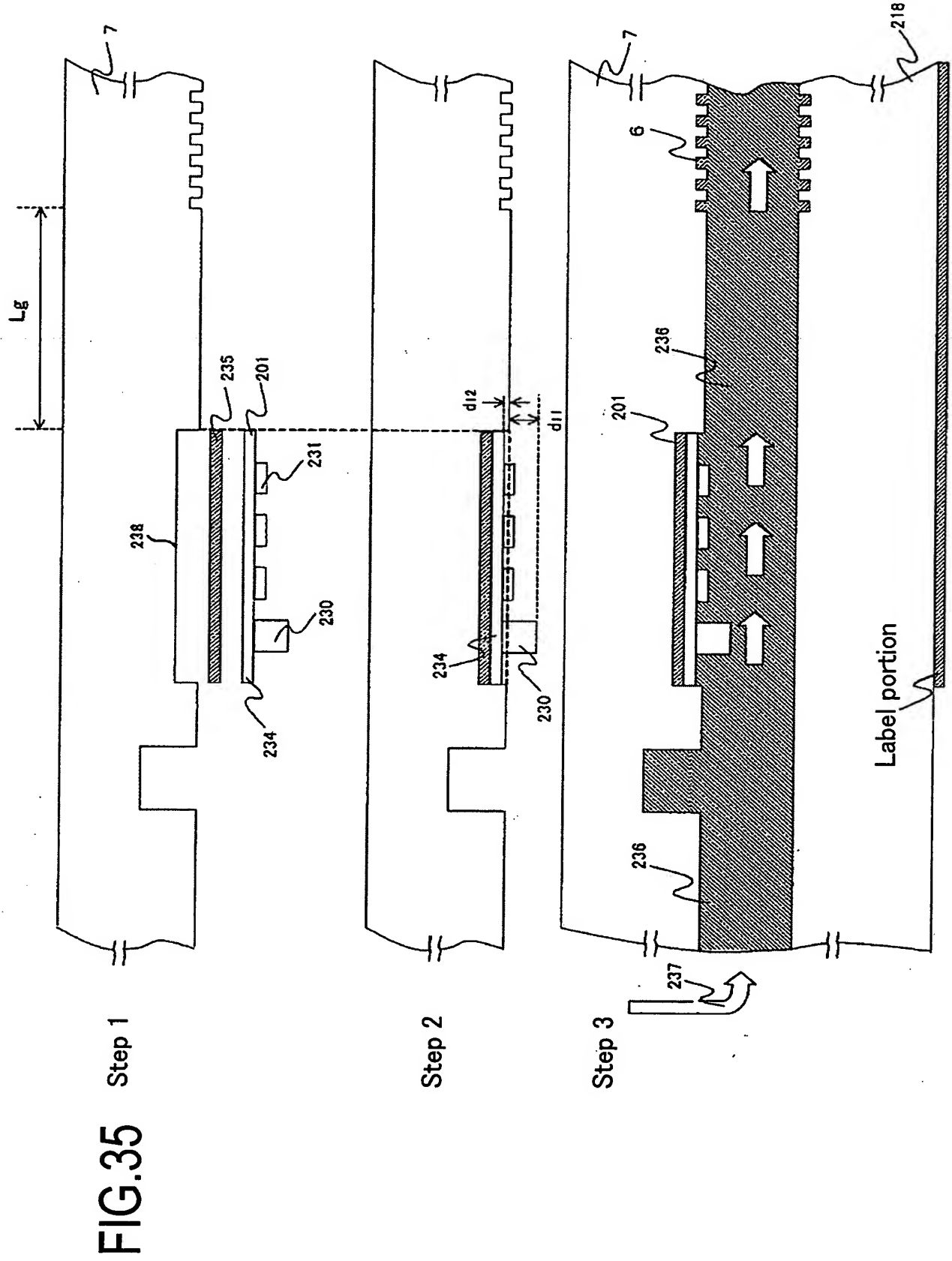
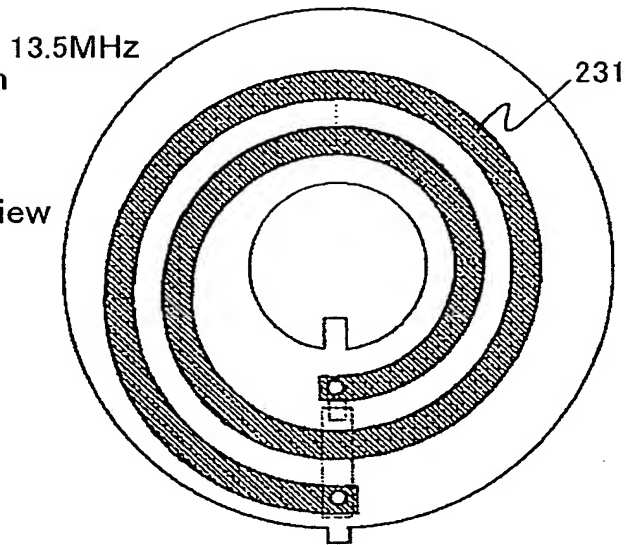
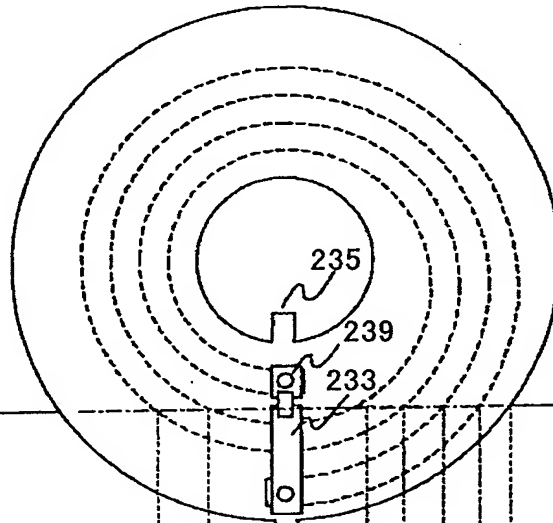
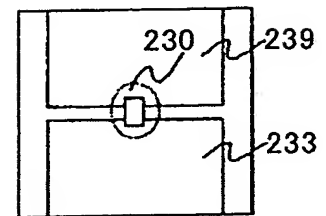
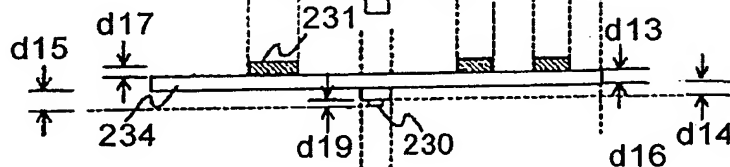


FIG.36Film fabrication
methodTop plan view
(a)Bottom
plan view
(b)

Enlarged view

(c) Cross-
sectional
view along
A-A'

$d13=15\sim20\mu m$
 $d14=8\mu m$
 $d15=50\mu m$
 $d16=15\mu m$
 $d17=8\mu m$
 $d19=50\mu m$

(d) Adhesive
layer

(e) Substrate

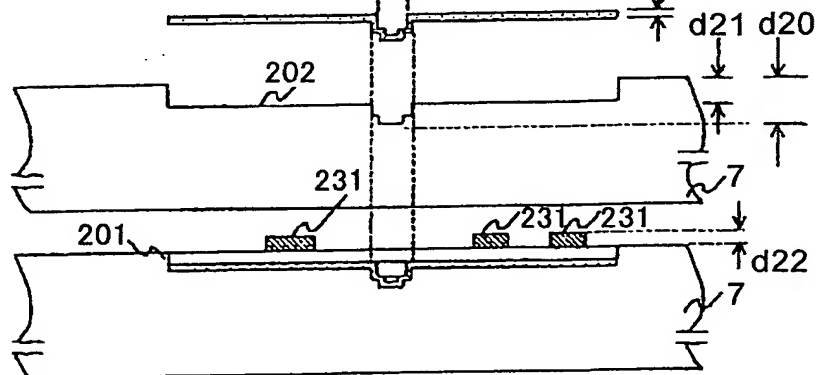
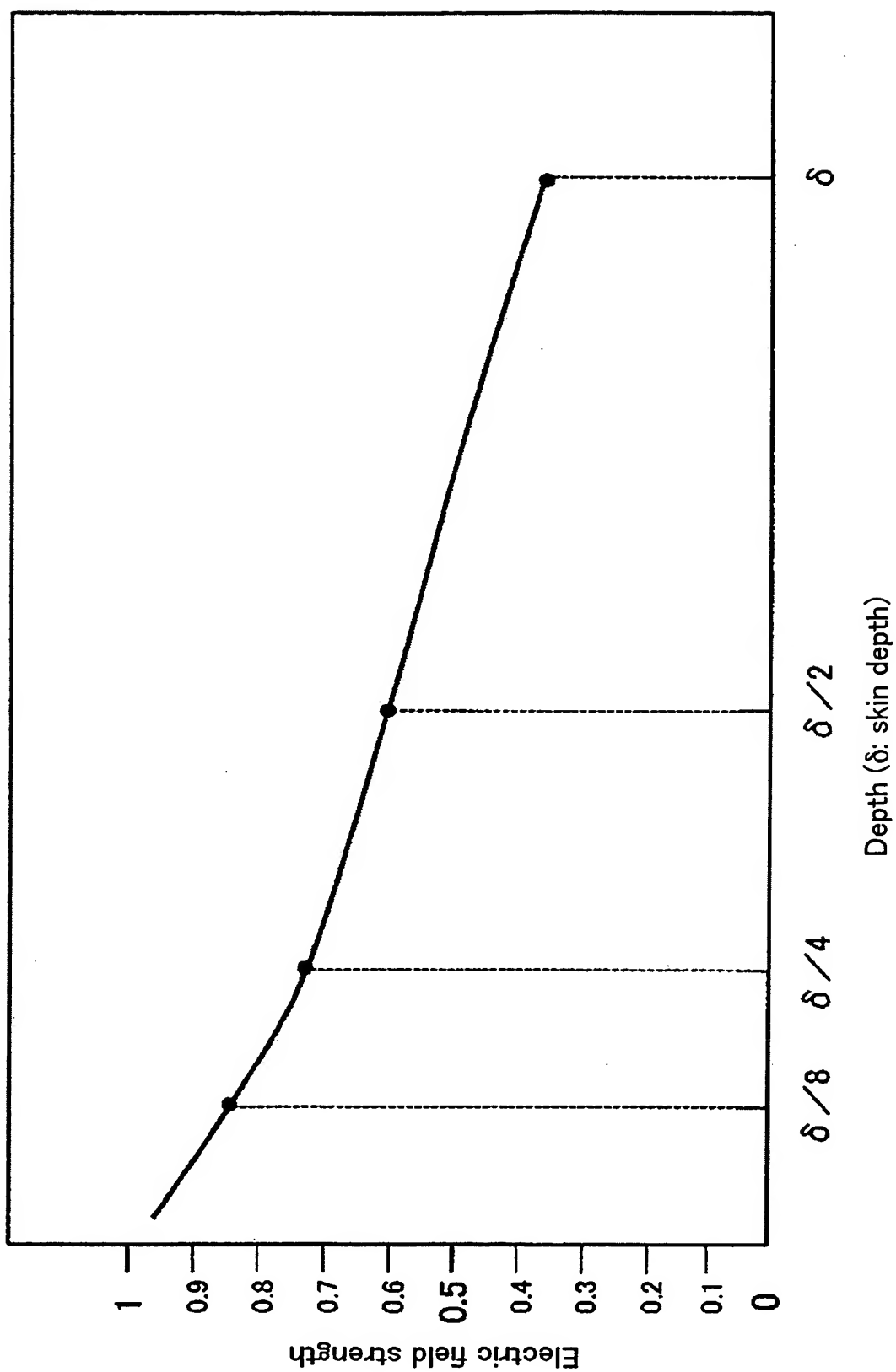
(f) Cross-
sectional
view after
adhesion

FIG.37

Relationship between electric field strength and depth



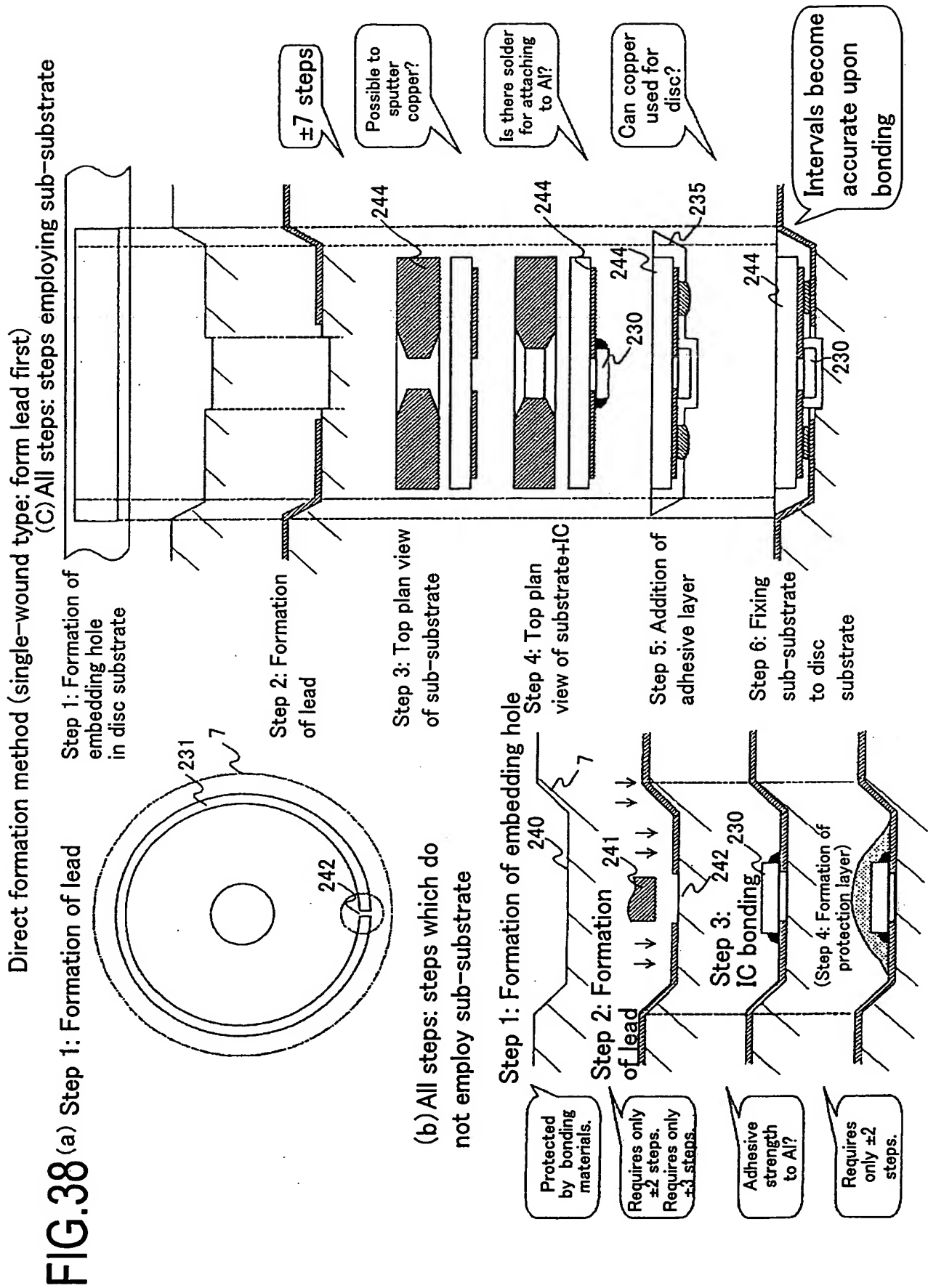
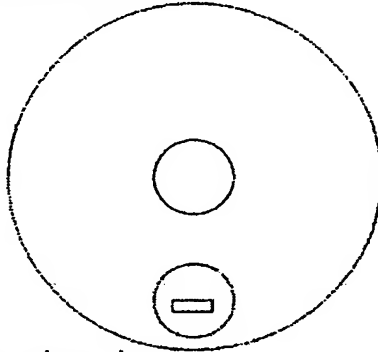
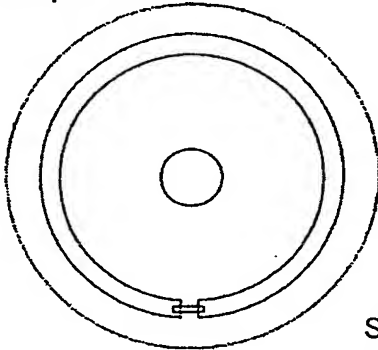


FIG.39

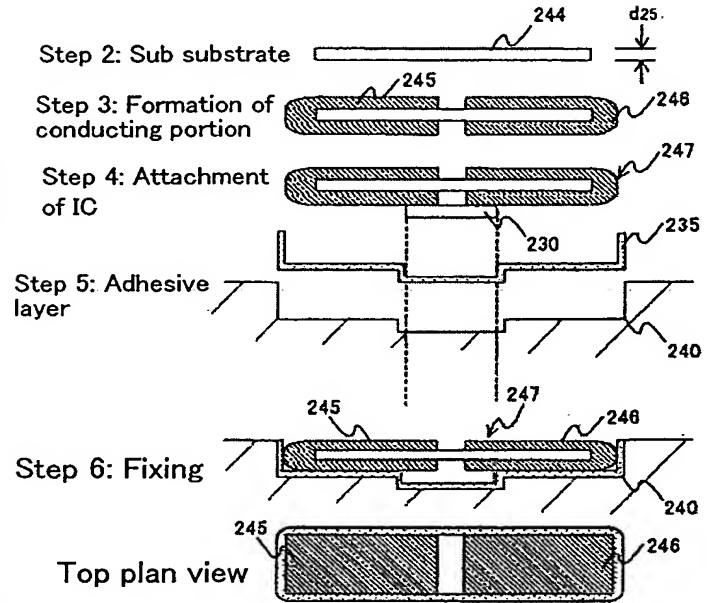
(a) Step 1: Formation of embedding hole



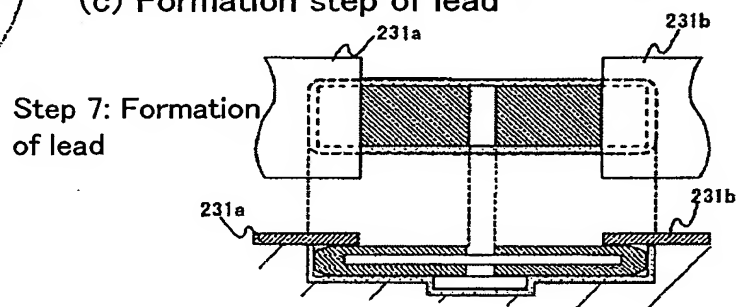
(d) Top plan view after completion



(b) Embedding step of sub substrate



(c) Formation step of lead



Direct formation method (multiple-wound type)

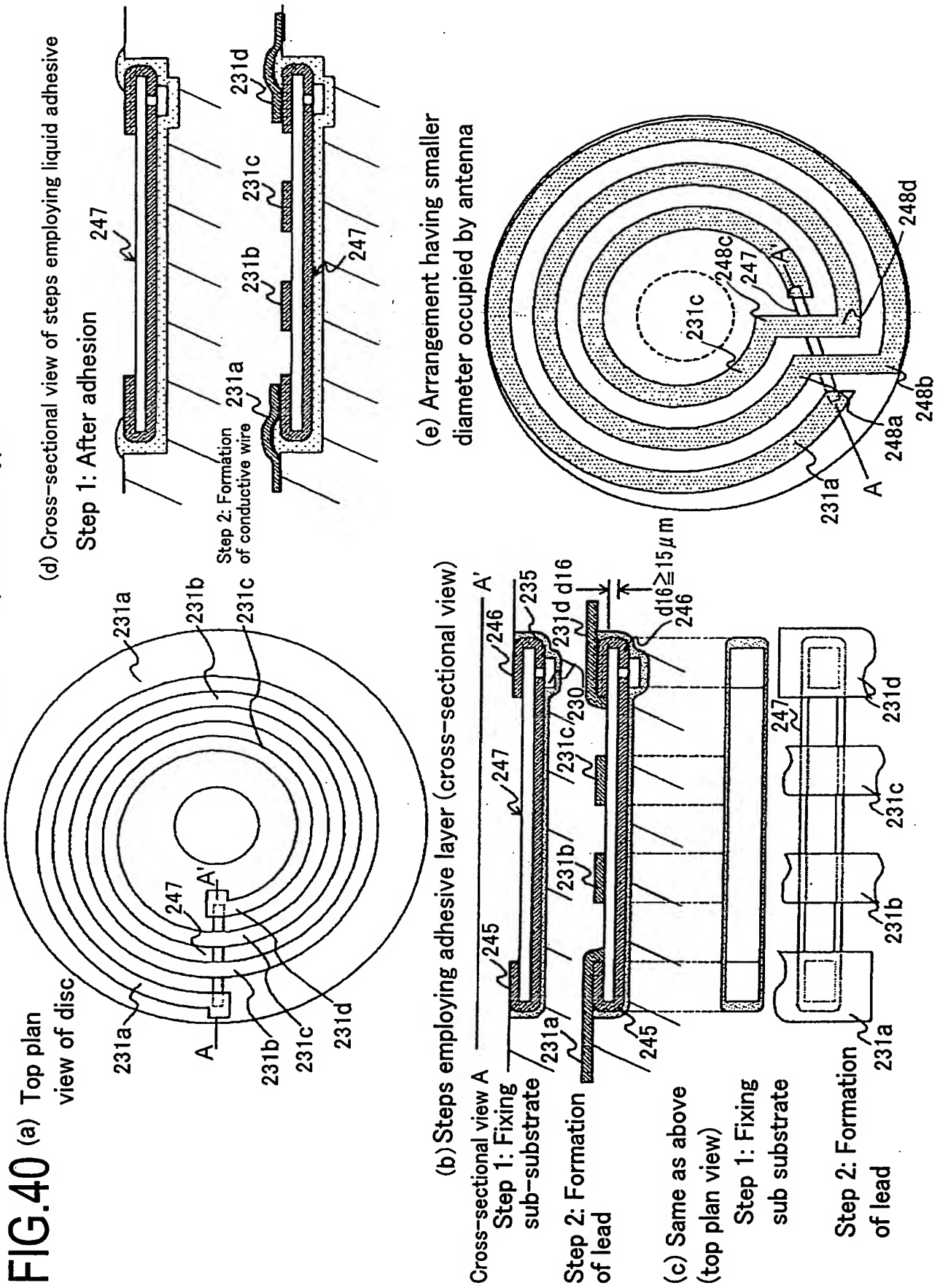
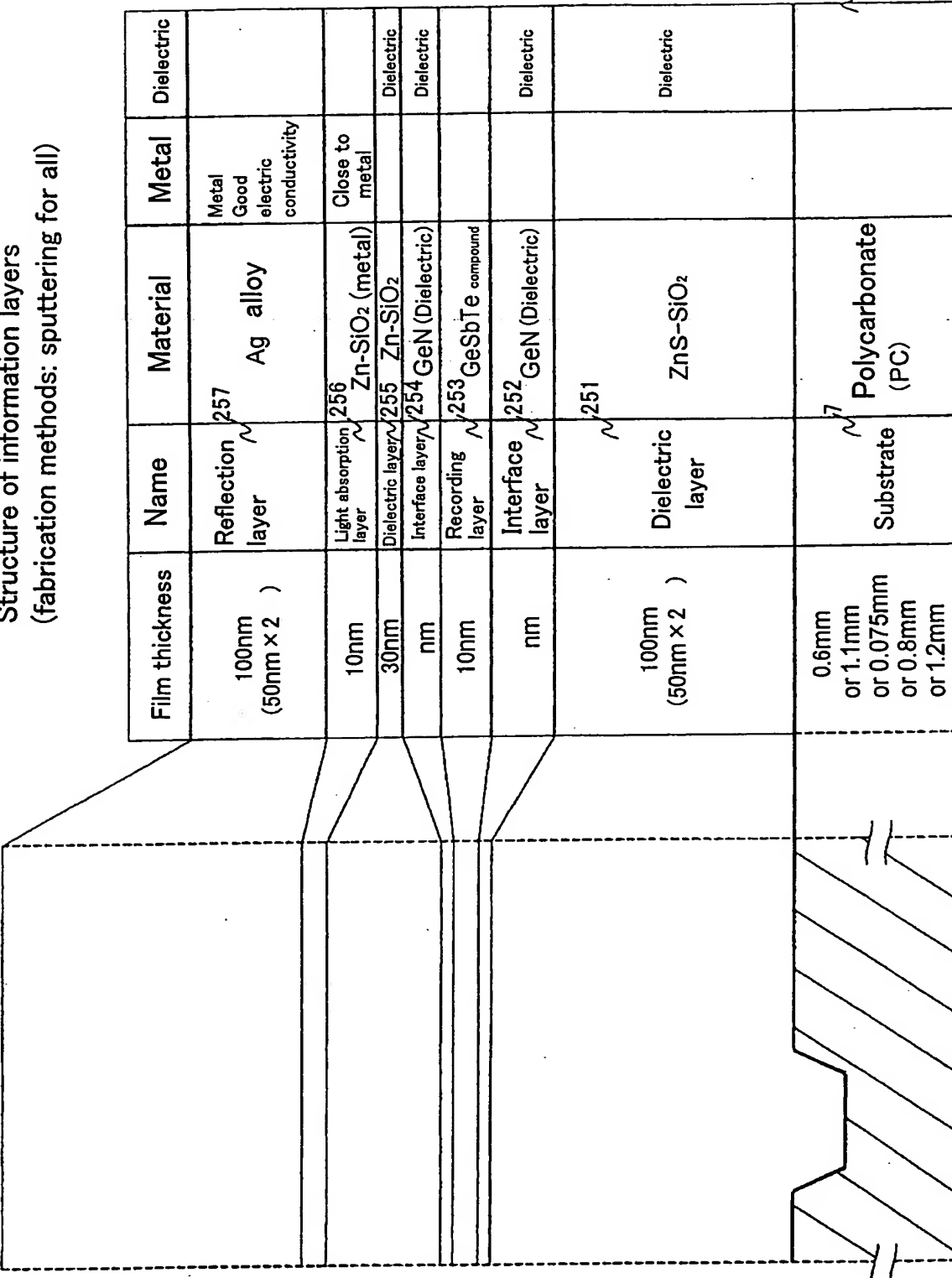


FIG.41

Structure of information layers
(fabrication methods: sputtering for all)



Film thickness	Name	Material	Metal	Dielectric
100nm (50nm x 2)	Reflection layer	Ag alloy	Metal Good electric conductivity	
10nm	Light absorption layer	Zn-SiO ₂ (metal)	Close to metal	
30nm	Dielectric layer	Zn-SiO ₂		Dielectric
nm	Interface layer	GeN (Dielectric)		Dielectric
10nm	Recording layer	GeSbTe compound		
nm	Interface layer	GeN (Dielectric)		Dielectric
100nm (50nm x 2)	Dielectric layer	ZnS-SiO ₂		Dielectric
0.6mm or 1.1mm or 0.075mm or 0.8mm or 1.2mm	Substrate	Polycarbonate (PC)		

FIG.42

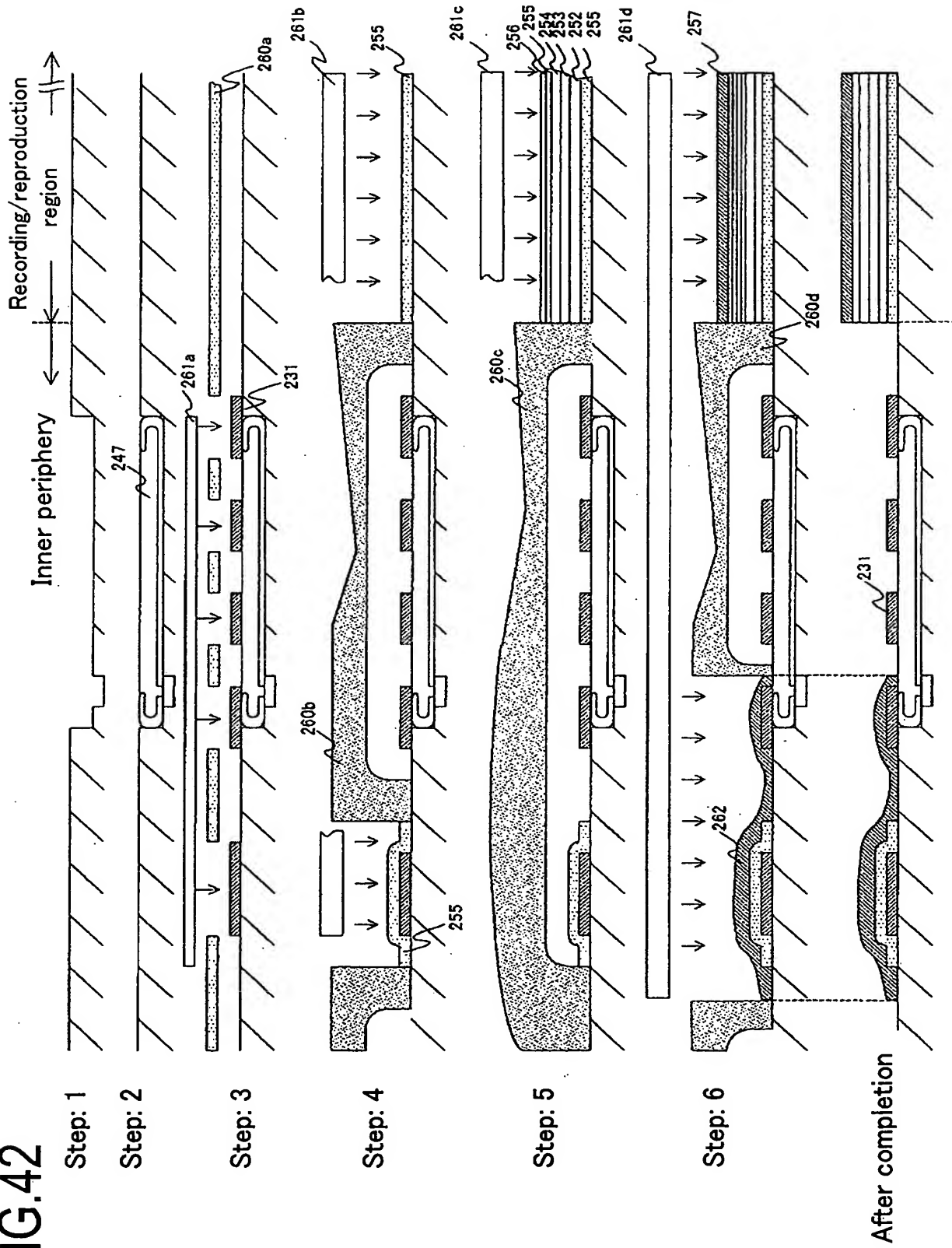


FIG. 43

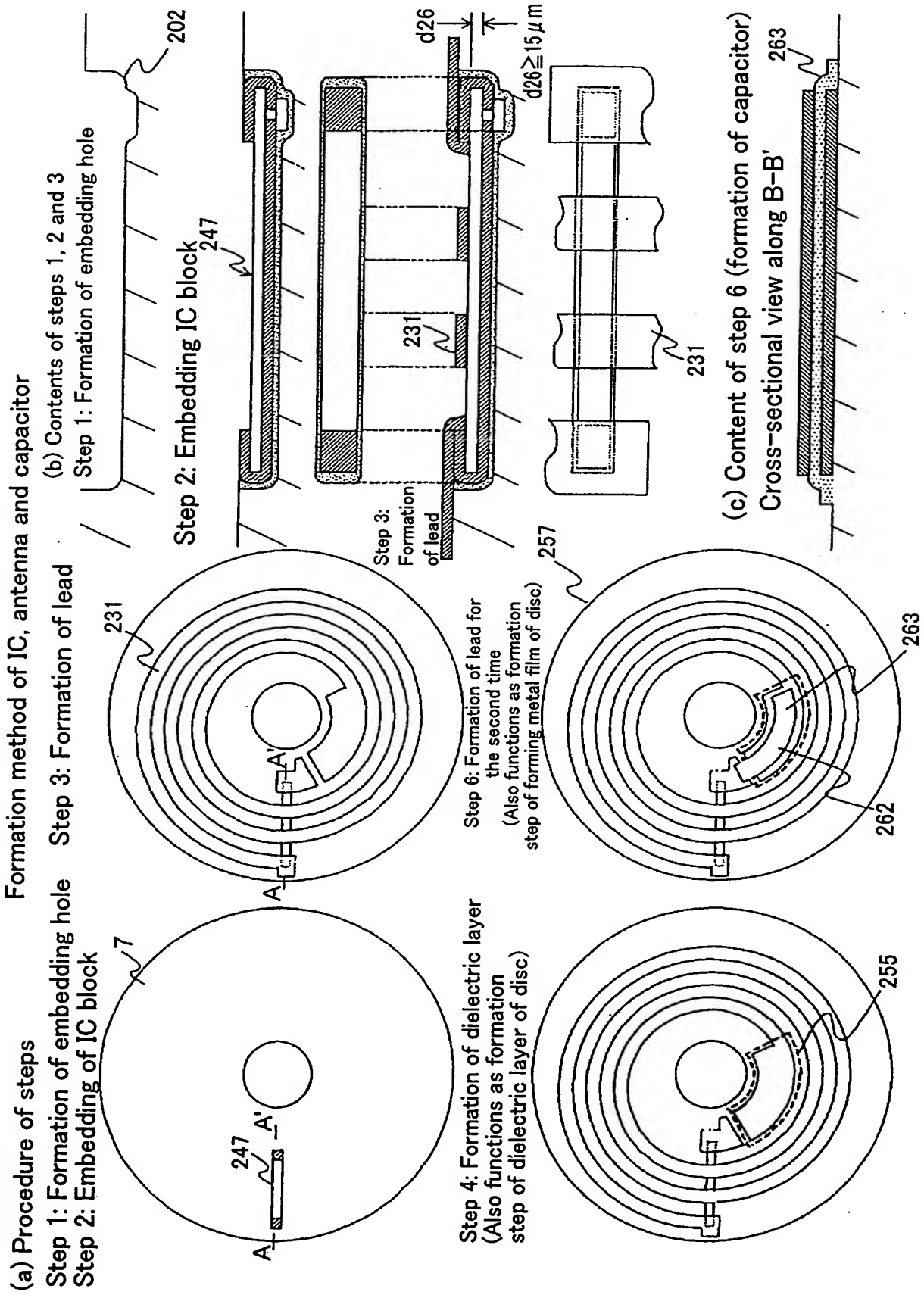
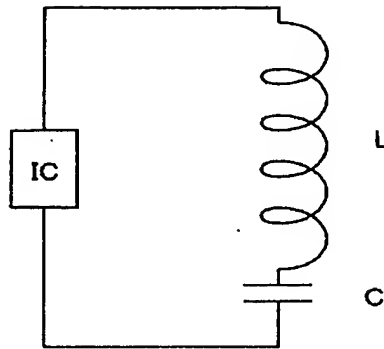


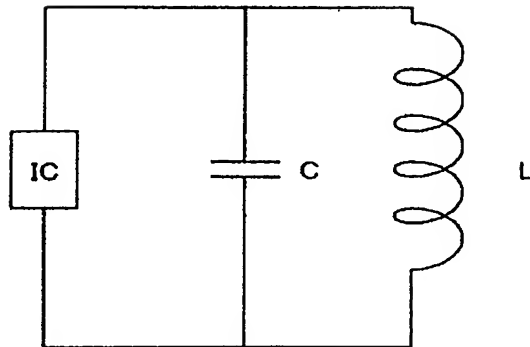
FIG.44

$$f = \frac{1}{2\pi\sqrt{LC}} \text{ (Hz)}$$

(a)



(b)



(c)

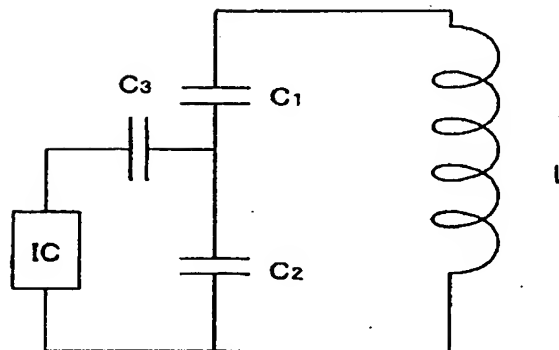
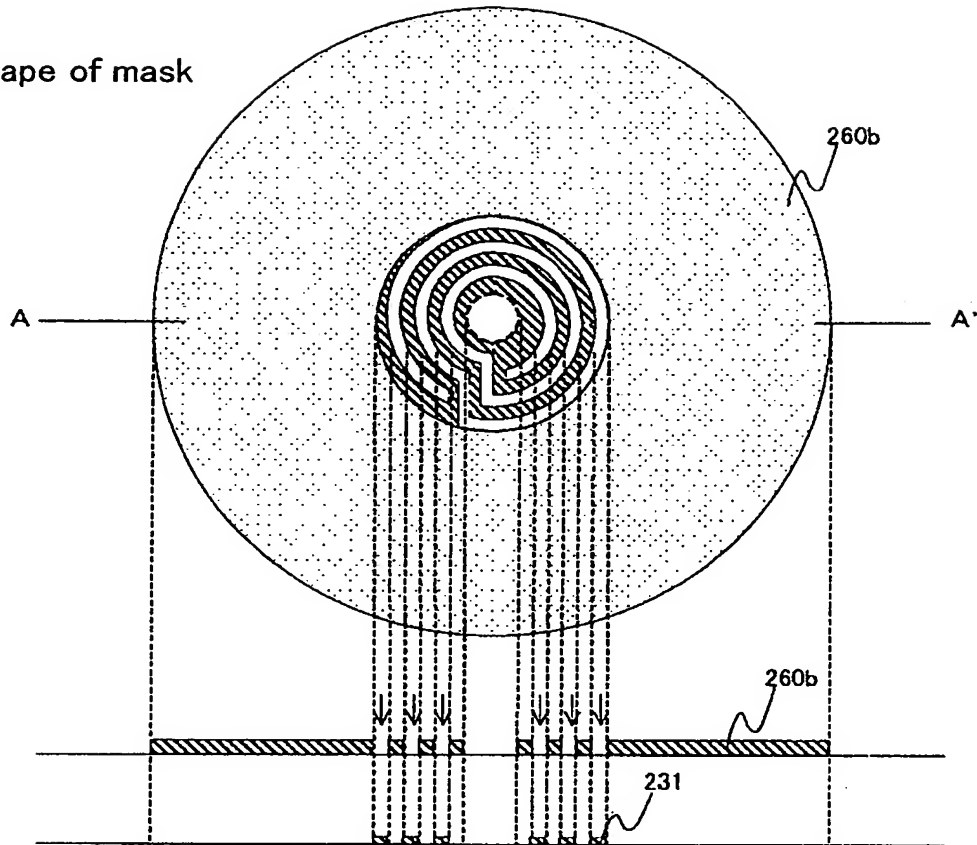


FIG.45

(a) Shape of mask



(b) Step of forming 4 discs at the same time

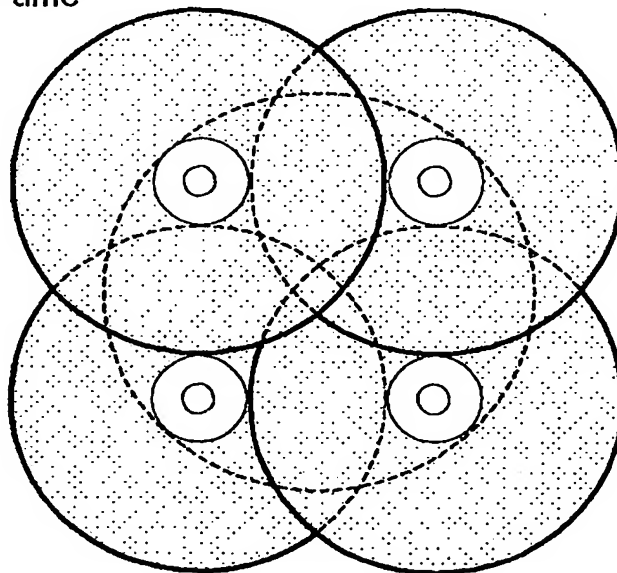


FIG.46

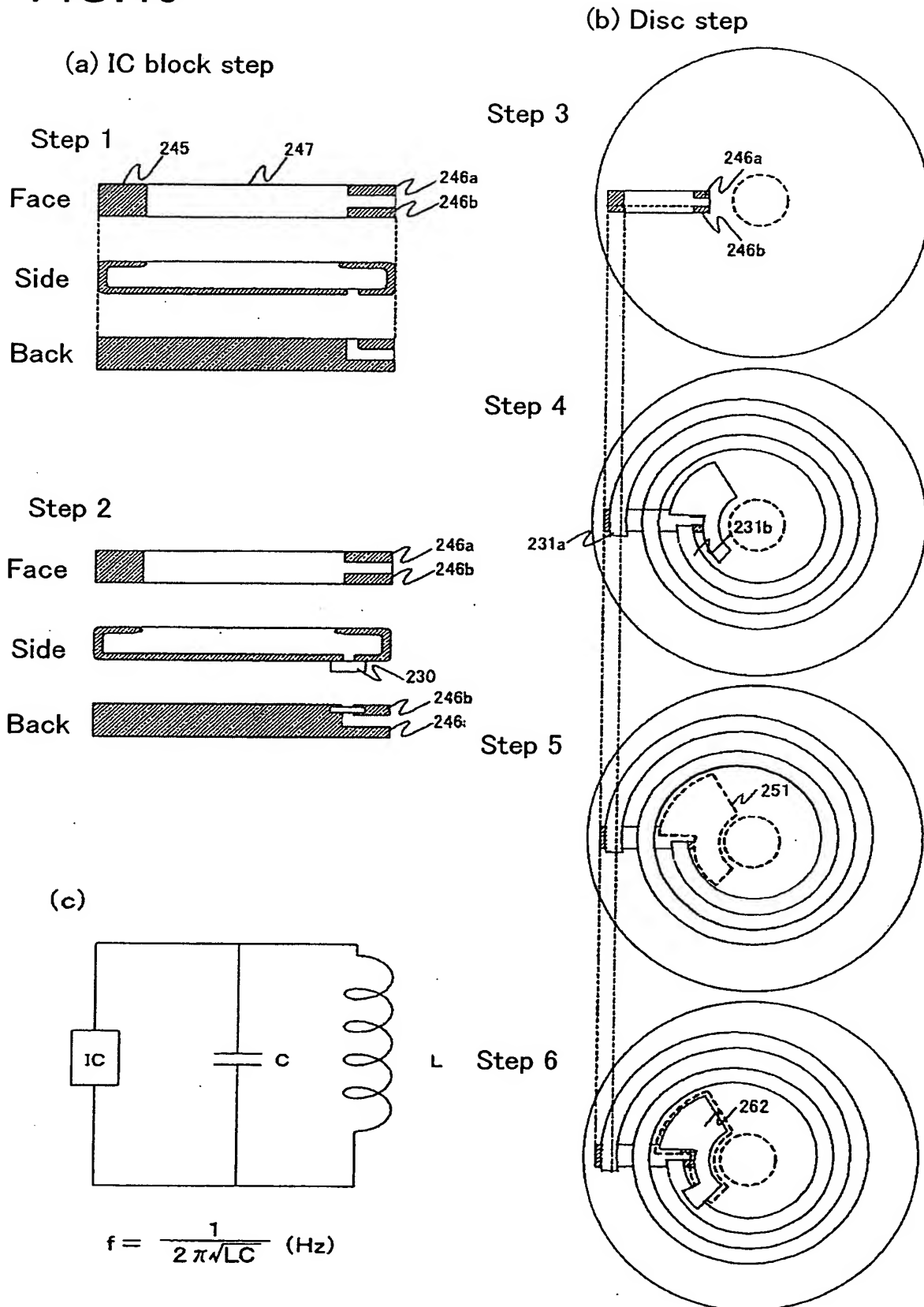
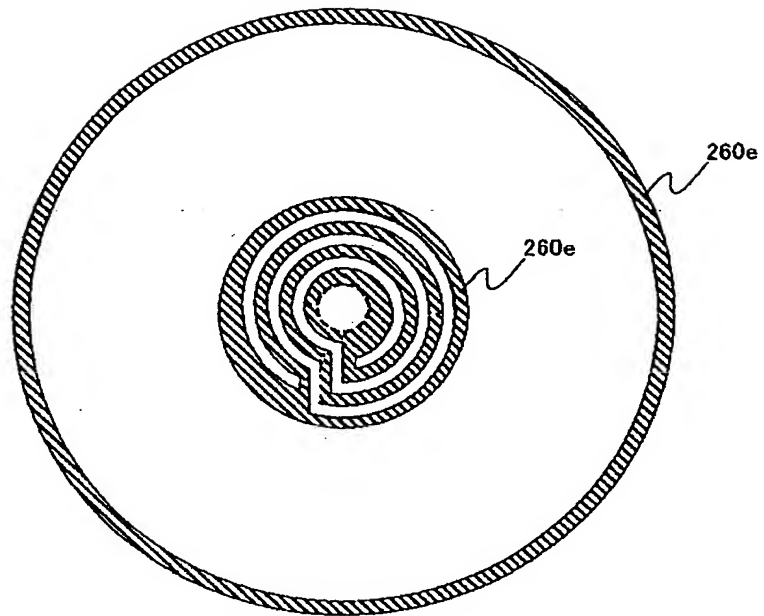


FIG.47

(a) Shape of mask



(b) Formation of antenna and reflection film

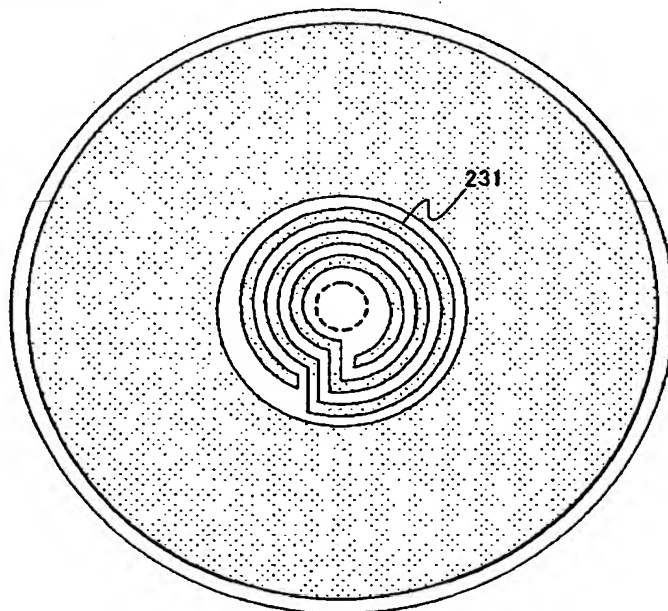
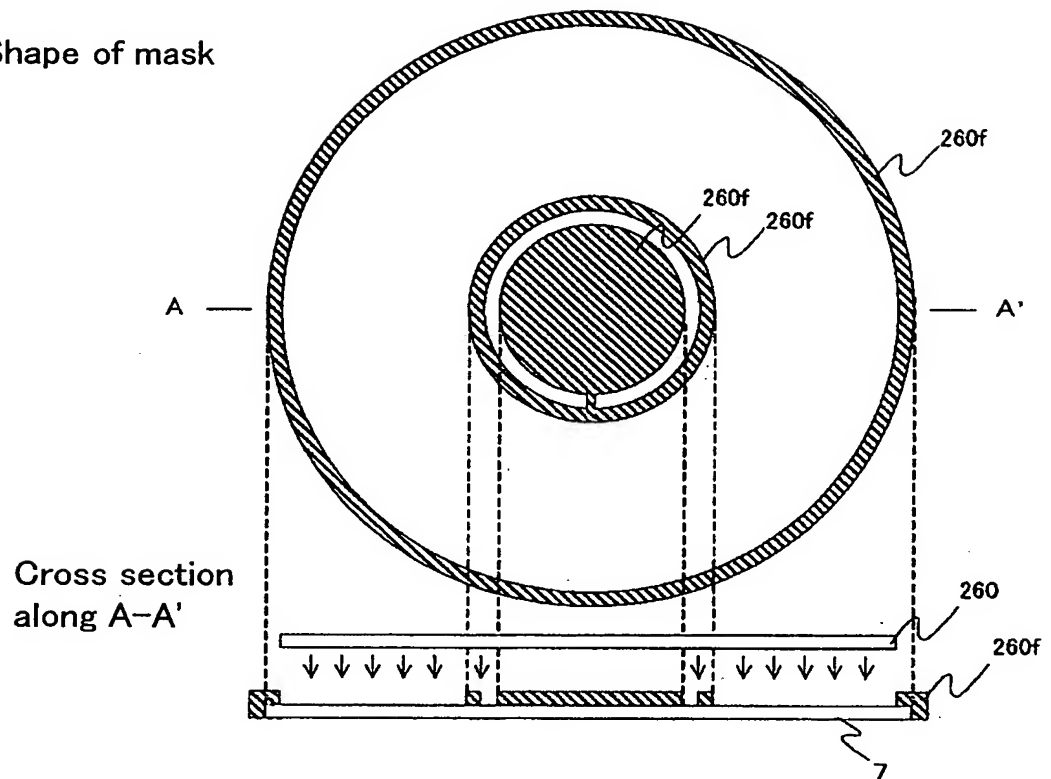


FIG. 48

(a) Shape of mask



(b) Formation of antenna and reflection film

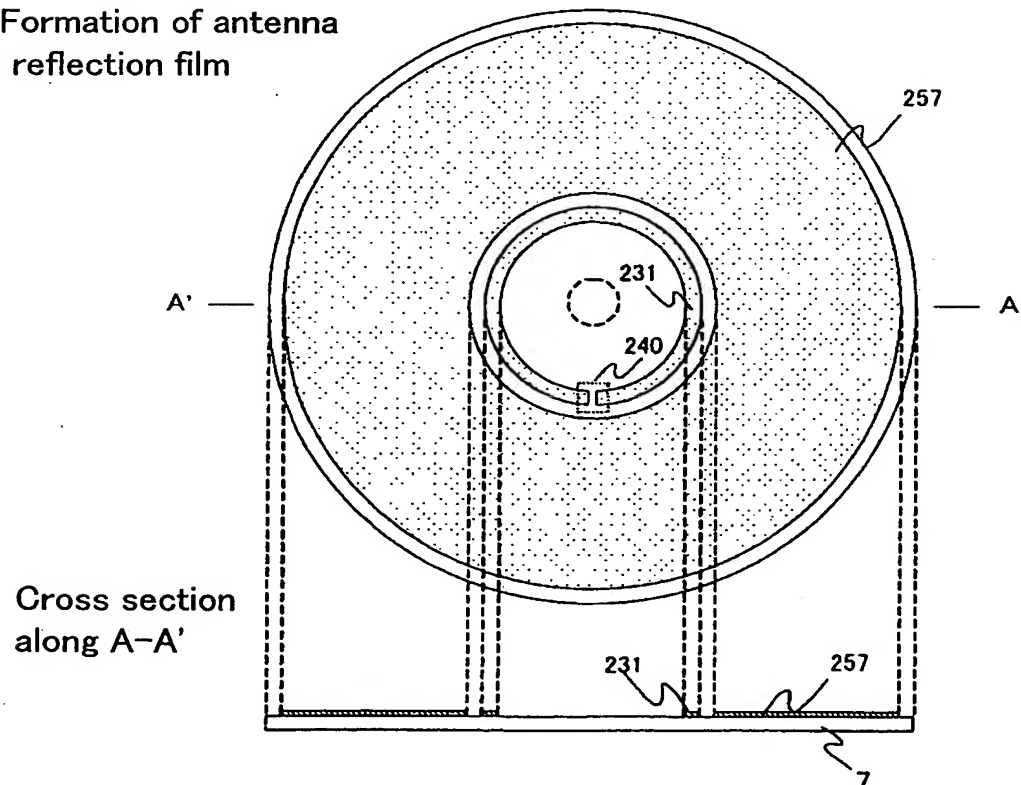


FIG. 49

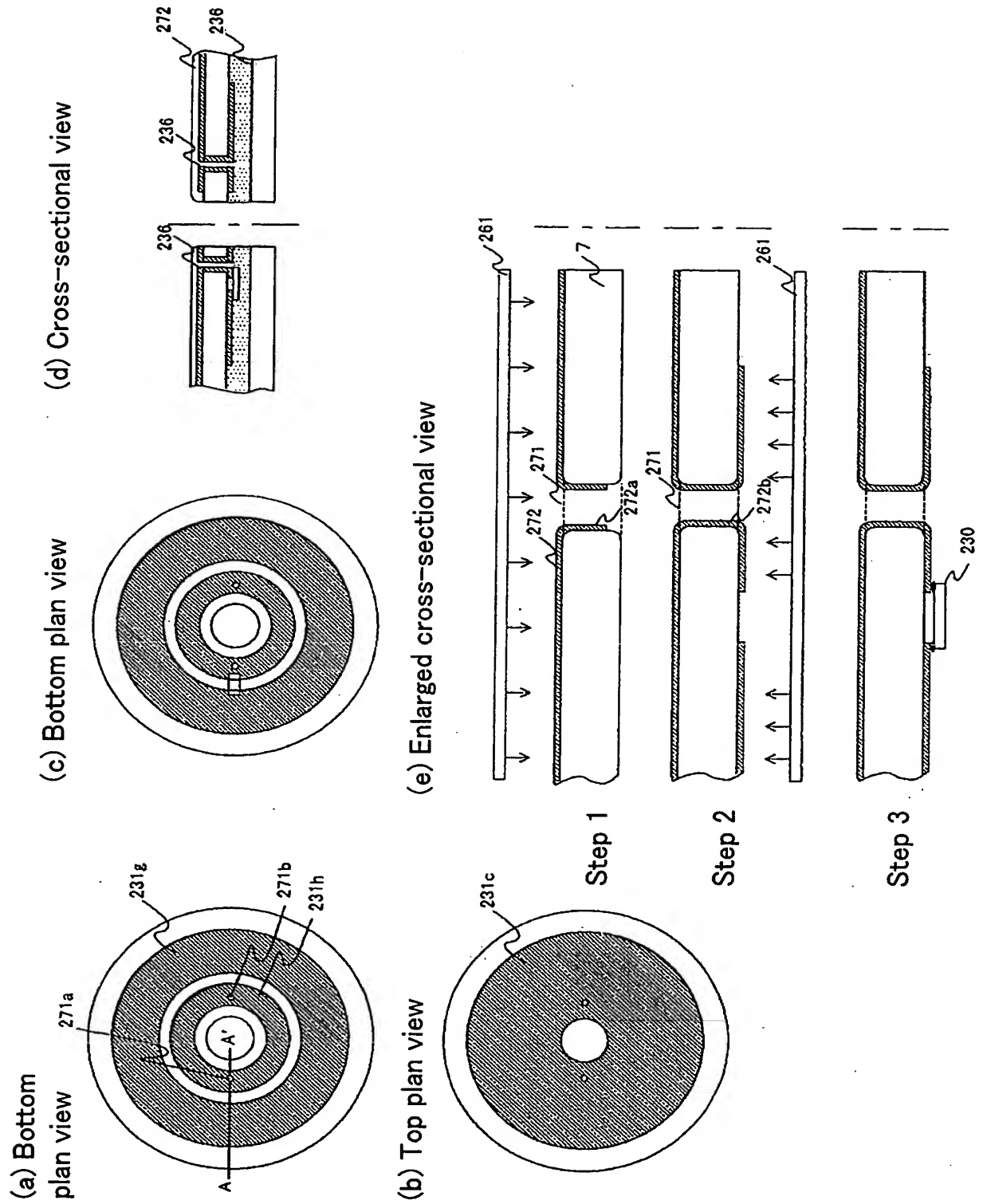
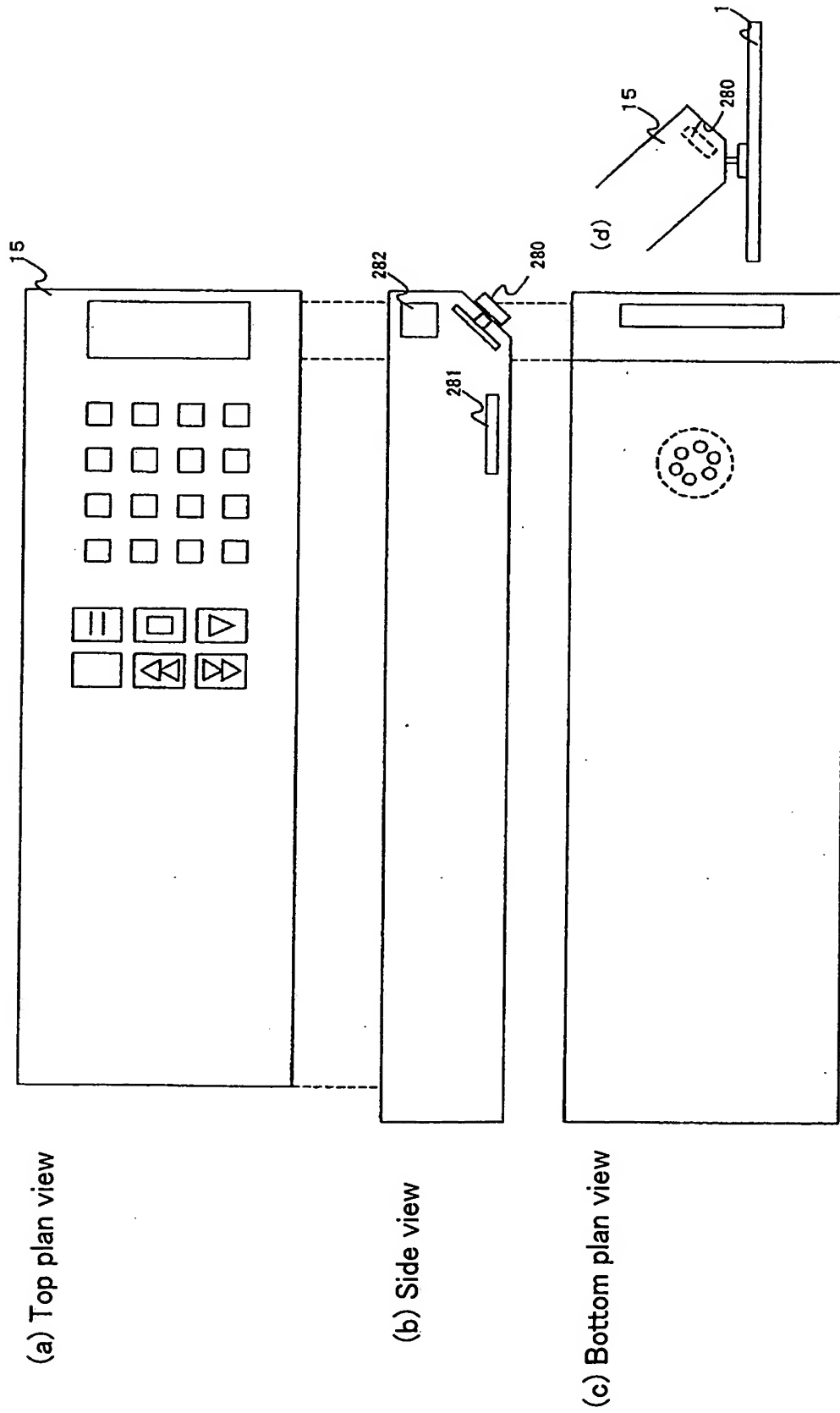


FIG. 50



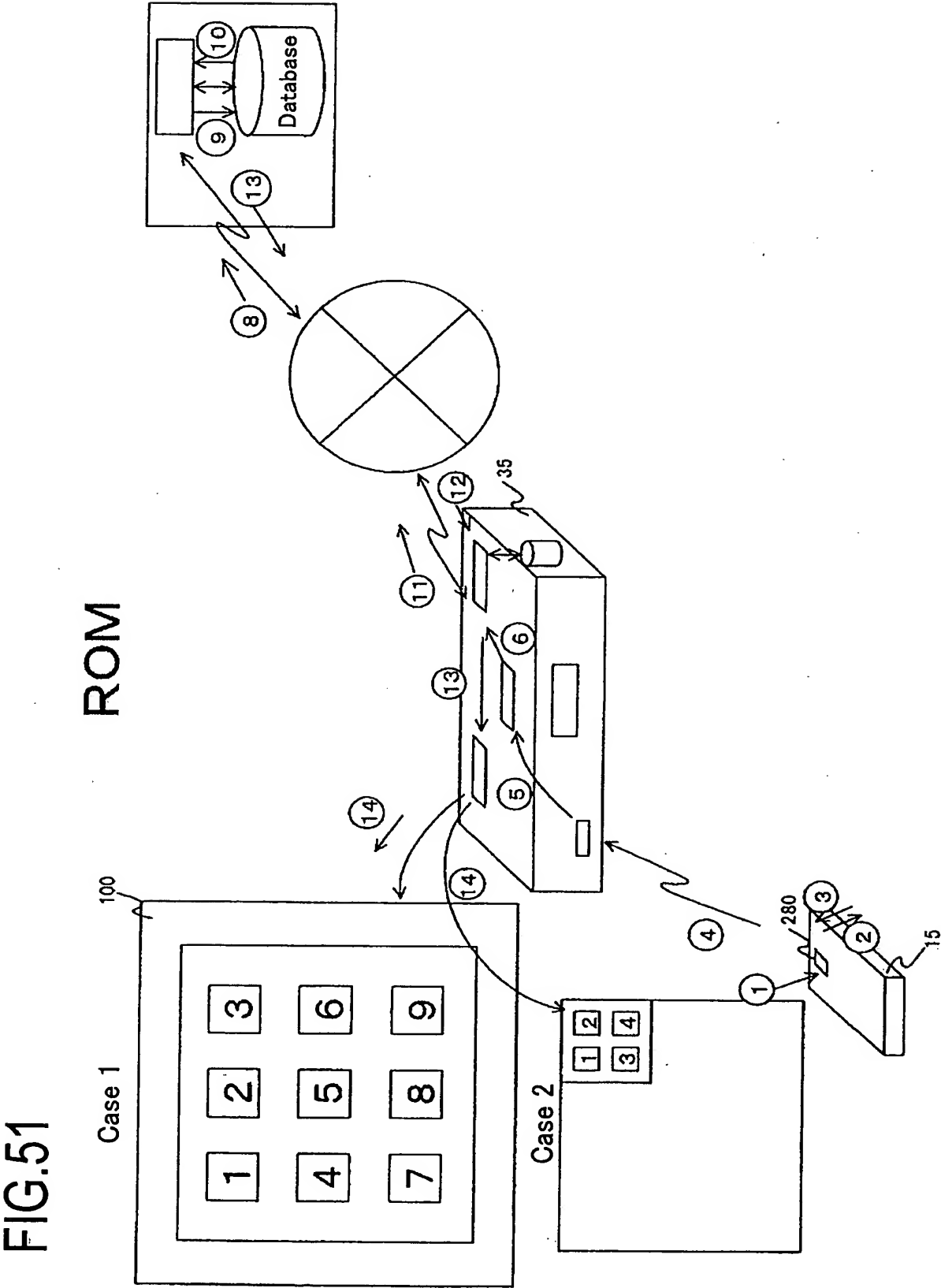
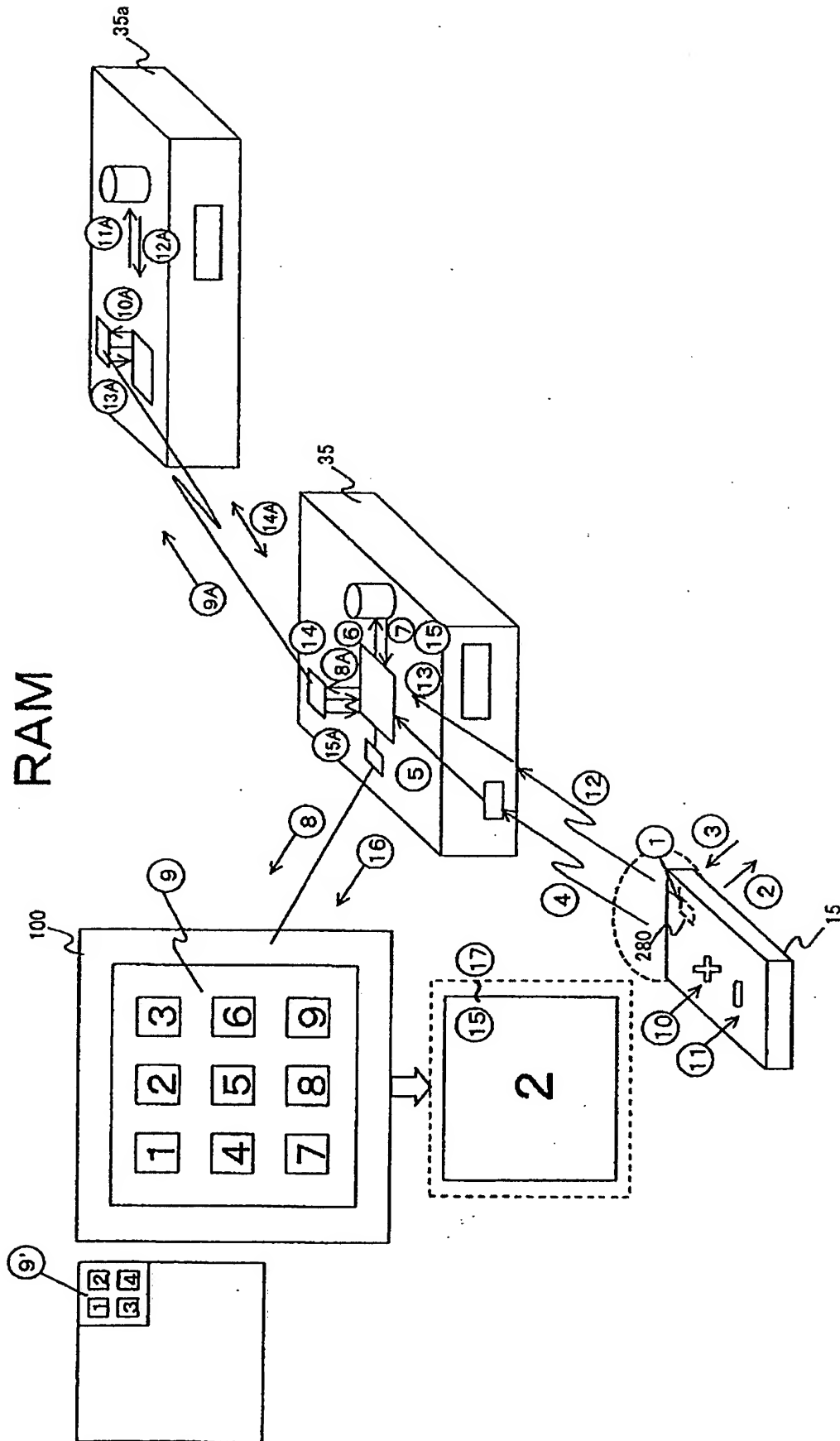


FIG.52



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